The Morton Lecture

ON

CANCER AND CANCEROUS DISEASES,

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MR. PRESIDENT AND GENTLEMEN,—I am of course reminded in this institution that I am within a very short distance of a splendid museum, from which I could have drawn a superabundance of material to illustrate the subject of this lecture; but my own impression is that it is far better for a lecturer on a special occasion like this to provide himself with his own material, and rely upon that or materials given to him by his friends, rather than to enter, as it were, into the domain of our vast collection, and perhaps overburden himself with its abundant material. I have therefore selected a certain number of objects which have been supplied to me by my friend Mr. Robert Boyce, assistant in the pathological department of University College, and through his ability and earnest work I hope to have an opportunity of allowing you to see certain specimens under the microscope and certain pictorial representations on the screen which will illustrate portions of the subject which I have to bring to your attention. By the rather illogical term "cancer and cancerous diseases" I presume it is intended that one should consider not only so-called true cancers, but sarcomatous tumours, and those which contain the elements of both—mixed tumours,—and not to travel beyond that line. On the present occasion, however, I must limit myself almost exclusively to the true cancers, for the subject is so vast that it is quite impossible to overtake every branch of it in one lecture, and if I were to attempt more I should most signally fail.

The term "true cancer" should be, I think, associated with those growths that depend primarily upon an over-development of a spurious form of epithelial, or *mesothelial*, or *hypothelial* tissue. I use the word *mesothelial* because it seems convenient to have a term to include those distinct forms of epithelioma which originate in the middle layer from those which commence in the upper layer of the embryo, or the under layer of the embryo. I shall therefore speak occasionally perhaps of the epitheliomata, the hypotheliomata, and the mesotheliomata. We are apt also here to speak of these growths as being more or less embryonic, and the term is an exceedingly happy one—very good indeed,—because it implies the incompleteness, at any rate, of the tissues of which these tumours are composed. At the same time, if used in too sharp a sense, it is untrue, because I contend there is nothing in the embryo like what you find in cancer, nor is there any cancerous element in the embryo itself. There is, in fact, a strange divergence from the embryonic type in these epitheliomatous and hypotheliomatous tissues—a strange divergence, which I would rather criticise by the word *anarchy*. They are anarchical evolutions from the embryo or from the embryonic tissues; and this is a very important matter, because we are apt to suppose that an inference may be built upon that word embryo or embryonic—namely, that the elements of these tissues may originate by a power of reversion to a true embryonic form. Now, if they were distinctly and absolutely like embryonic tissues, I should admit that theory, but until I find in a cancerous growth a distinct reproduction of the pure embryonic elements, I say that it is a dangerous expression, very likely indeed to shut up inquiry, to limit our investigations, and to pass glibly on, satisfied with the explanation that these are embryonic tissues. They are not embryonic tissues; they are like embryonic tissues; they originate from them even as the whole body does; they are part of the body, but they are not distinctly embryonic tissues; they are, as it were, irregular, uncontrolled tissues, and I would speak of them rather as *anarchical*. I would speak of them as anarchi-morphic, anarchi-bolic, and anarchi-synthetic—as building up a tissue.

Clearing our way, then, we pass on to consider what is the character and what are the surroundings of these tumours. And here I of course throw myself upon your own experience, for it must be just as great as mine in regard to the painful history of these perilous growths as a general rule. You know how they begin, how they progress, and you know their termination as well as I do. Nor do I dwell upon the particular conditions, significations, or qualifications of this or that stage of their development, and if I do not trouble you with the influence of age or of sex, of hereditary influence, or of occupation, or of diet, it is because I assume that you know about these points as much as I do.

I pass therefore directly, as far as I can, to ask what is the cause of cancer. And no doubt everyone here will say, "We know not the cause": and in that I entirely agree. But does that prevent us from endeavouring to ascertain the cause? Are we not compelled as members of a scientific profession to dive into this mystery? Is it likely that Providence has, as it were, struck such a fatal and fearful blow at the human construction, that there is no remedy for our ignorance, no knowledge but that which we now possess? We most surely stand in a position between the past and the future; and we are responsible for carrying on this investigation and inquiring into this disease until we know something more about it. Therefore there needs no apology for attempting the solution of what seems to be an insoluble problem. But let us see how it has been approached in past times, and let us be encouraged if we can by ascertaining the mode in which and through which knowledge has been advanced in regard to these important diseases. And here I claim that the most advance has been made through the study of structure. We of course know the importance of studying the pathological relationships, the history, the development, and the surroundings which are worked up, as it were, in this intricate problem,—those also of nation, of race, of family, of hereditary influence, and so on; but we cannot conceal from our minds, I think, that, as a structural condition affecting the living economy, it must be through the structural element that we must first try to reach the truth. Such has been the case, for if you study the older descriptions of this disease you will see that they are especially remarkable for the keen appreciation of the conditions of growth, their whereabouts, the progress they make, the general career, as it were, of these tumours; but the writers are specially ill-informed as regards their structure. If we take a most admirable Thesis by one George Tabor, published upwards of a hundred years ago in Haller's splendid "Disputationes Chirurgicæ," we shall find that he gives a most characteristic account of a cancer of the breast. He speaks of the epidermoid element, of the soft tissue, of its extreme vascularity, of the union of the ducts with the acini of the glands; and then he adds that there are two sets of lymphatics—which of course we now know to be an error,—one conveying material to the breast and the other bringing it back. Then he proceeds to speak of the life history of the disease, and he characterises the whole in a few remarkably good touches, expressed in a Latinity which we seem to have forgotten, embodying in a few sentences, or sometimes in a few words, what we now spread out into a paragraph.

Now, how have we advanced since that time? Plainly by anatomical investigations in the first instance; and if I venture to put upon the screen an illustration of what has been done in the past and then come to what we can do in the present, you will see that our advance since Tabor's time has been most remarkable. The diagram before me represents the plate in Dr. Walshe's "Cancer," which was executed on steel from drawings by myself in the year 1846. You will find in this illustration that we knew then something more than our friend Tabor. In the centre you will see the section of a cancer of the breast. It is hard, scirrhous, with fatty lobules round about, and at the margin, the marginal glandular acini still unaffected. You will see that we were able at that time to illustrate its peculiarities of structure, and to refer these by comparison to natural elements in the body: the red blood-corpuscle, the white blood-corpuscle, and then healthy epithelia, then unhealthy epithelioma, still more marked on this side, and still more wild-fashioned epithelial elements, and still more wild-looking growths in the heart of the cancer. Here you also

see the remarkable stroma to which I shall have to direct your attention by-and-by—the peculiar stroma that surrounds the acini which contain the so-called cancer cells. I bring forward this plate merely to show that in the hundred and thirty years that have passed between Tabor and Dr. Walshe, the advance in knowledge was not in the history of the disease, not in its development, not in the peculiarities relating to sex, and so forth; but was in the extent of knowledge in reference to structure. I maintain that, in dealing with this point, I afford the key to the most material advances which have yet been made in regard to the nature of this disease. So that, I think, anatomy must still be the first path of inquiry.

I will now show some specimens to illustrate by example the mode in which anatomical research has already given us even more knowledge than we possessed in 1846. First of all, in regard to the cells, I am afraid it is too frequently the case that in using the words epithelial and epithelioid cells we have neglected or ignored the particular deviations which these cancer cells certainly manifest when you compare them with healthy epi-, meso-, or hypothelial elements present in the embryo. In the embryo all is methodical; all the cells of these tissues are undergoing a straightforward and well-defined career, not pressing each other out, not squeezing for victory, not forcing against any other tissue, but each coördinated to its destined end, and marked in the most peculiar way by characters leading to that end. Now, if you examine the epithelioid element in cancer you find distinct divarication and divergence from all that. What does it amount to? You are familiar enough with the forms of these cells, so that I need not sketch them; but you will allow me to remind you that the important part of the cell, according to modern physiological notions, is the so-called nucleus. Now, the nucleus governs, as far as we can understand it, the development, the evolution of the cell, as well as its multiplication. What are the peculiarities of the nucleus in a cancerous cell? They are described in a very perfunctory manner. But have we not new methods of analysis? Have we not methods of investigation which penetrate a little deeper than that? I fail to see until recently in a paper by Dr. Heneage Gibbes, that there have been any effective researches into the *modus operandi*, as it were, of the nucleus of a cancer cell. He has undertaken this inquiry, and Dr. Lauder Brunton is working on the same lines when using various tests of colouring agents. He is not only able to discriminate between different layers or strata of healthy cells, but he has led the way, which has been followed to a certain extent by Dr. Gibbes, in his discrimination of the different changes which he sees in the cancer cell. These reagents will unlock the mystery which is lodged in the nucleus. We know that the nucleus has important properties originating from the combination of seminal and germinal influence, developing the whole body, developing even the cancer which grows within the body. Now this germinal and seminal influence has been shown to be associated with remarkable movements and changes of form in the core of this little bit of nucleus, most wonderfully tufted columnar arrangements, feathering themselves out this way and that; and it is through the agency, no doubt, of this internal economy, through these remarkable changes, that the healthy embryonic cell, the germ-and-sperm cell, reaches the condition of the true embryonic cells which carry on their development still further. We must endeavour to search out this mystery, to look into the minute anatomy of the nucleus of the cancer cell. That is a hopeful, and it does not seem to me at all an impossible, thing. We shall find it, no doubt, *anarchic*, but shall we not be able to trace the steps of the anarchy? Shall we not hope, as it were, to unfold the mystery of mysteries which lies in the nucleus of a cancer cell?

But if we proceed further with regard to these cells, we find it is not only their structure which we must study, but we must study their composition. And here, again, it is by the agency of different tests acting upon them that we are able to discriminate between certain important portions of a healthy cell. Why should not this mode of analysis be applied at once to an unhealthy cell? Are there not swarms of agents in nature—colouring matters, chemical substances, and other things—which should be forthwith tried, to see whether we can develop by this sort of polarisation—not of light, but of chemical agency—abundant characters in these unhealthy cells which will lead us to see how they become anarchic and unhealthy? Then we must apply, of course, to the chemist, because these cells are not only anarchic in their form and evolution, but in the products which they yield. The healthy epithelial cells stand out amongst the secreting agents of the body. Their function is not merely to cover up and protect, but they have functions beyond that—metabolic functions of separating from the blood secretions of an infinitely varied kind, and that must be done through mechanism and chemical affinity. It is no use supposing that the process is blank. It is no use believing that a salivary is the same thing as a mammary gland cell; that cannot be. There must be some hidden secrets in the very substance, as in the very mechanism of these cells, which give origin to their metabolic action. There must be not only a peculiarity of structure as between the different glands in these little cells, but that must be associated with peculiarities of substance. And here we want the chemist to come in; we want chemical investigation of the highest character, and we are approaching the time when we may hope that chemists will take up this subject. We have them already engaged in investigating the poisonous substances which occur in the body from decomposition, and the other poisonous products which occur in the body in the shape of leucomaines, automaines, and toxines, things that may develop sometimes by foreign agency, as we know, and sometimes in a spontaneous manner; and we call upon chemists and demand their assistance, and we urge this on the younger members of our own profession who are showing zeal in various ways abroad and at home. We must take care of our honours, for foreigners are close upon our heels, and are even surpassing us; we must urge on our young chemists to take up these matters; and opportunities will be afforded them by the conjoined Colleges to undertake inquiries of this kind. It would, I say, be a pity—I dare hardly call it a shame—if some did not come forward and push on investigation in regard to these serious and calamitous forms of disease.

Now we see that metabolism, as well as the mere mechanical thrusting in of these morbid elements into the body, must be seriously at work, and we ask that that metabolism should be investigated. The epithelial cells are essentially secreting or excreting structures; although deformed, although disordered in their arrangement in cancers, that part of their duty is going on, but not going on right; it is going on wrong. What do they produce? Very many years ago I took a cancer immediately after it had been removed by Liston in the theatre of University College, and within a minute I tested the juice of the cancer, and found it acid. By degrees I found that this observation was not unique, and in fact it had been repeated and asserted over and over again, so that I thought little of it at the time; but it leads one's mind back at this moment to the thin edge of an inquiry—what is the acid? I tried to find it out, but with the imperfect means at my disposal, and my imperfect knowledge, I could not say anything more than that it yielded a viscid sort of acid and viscous liquid when it was evaporated, and I thought it was lactic acid. But I do not believe that lactic acid by itself is a sufficient answer to this inquiry. Here, therefore, looking at the secreting power of these cells, I say we ought to investigate, and we ought to have investigated, what it is that they secrete or excrete.

Such chemical researches will be most material for the subsequent examination of what takes place with regard to these cells. I have described their behaviour as anarchical. Now, what is the great governor of the body? The nervous system. It is very well to say that tumours can be developed in vegetables as well as in animals. Are we sure that this analogy is true? The world is full of analogies. A man to a certain extent is like a carrot, but he is very different; and so these cellular over-growths in plants, caused by irritation or puncture, lead us to study in a most interesting way the possible alliance or analogies between them. But that must not mislead us; we must not suppose necessarily that an anarchical growth in a plant is quite the same thing as an anarchical growth in an animal. The anarchical growth in a plant may, however, be due to a distinct detachment of that little protoplastic fibre which has been shown to run through many vegetable cells from cell to cell. With the growing plant there is a fine, delicate protoplasmic fibre, which has been long overlooked and only quite recently detected, which seems to govern the evolution of the outgrowing cells of the plant. Now, is there no such thing as that in the animal cell? Is there no connexion between the

governing fibre—which really lays down, as it were, the form and structure—and the complication of the structure of the human body or the animal body? It is said that this is merely an adaptation of the form of the nervous system to the form of the animal. I disbelieve that altogether. I believe strongly and firmly that the nervous system is the centre which lays down and commands the growth of the body in this, that, or the other direction. If not, what does it do? I can understand that in the heart of the embryo cell there should be a molecular movement which will give onset, as it were, and impulse to the growth of the cell. I can suppose that; but when once that cell has multiplied itself into hundreds and thousands, can I believe that that cell or its actual contents *per se* still govern the body? No, the contents of that cell, the product of this nucleus, must be growing all the time in the other cells; and it must shoot out into them and command them to go thus far and no farther, and to develop in this way and not in another. I believe this may be. You may regard it as hypothetical; but let us see what happens with regard to cancer. Has anyone ever shown, as distinctly as has been shown with regard to the secreting cells, that the epidermoid or epithelioid cells of cancer are under the influence of the nervous system?

Not many years ago we were very much struck with the fact then expounded to us that distinct nervous filaments had been traced into the corpuscles of the salivary gland. I saw the drawing of it, and I would hardly believe it. I thought it too wonderful to be believed, but I gradually became accustomed to it, and now we know that nerve filaments do penetrate into all normal epithelial tissues. I may mention a case that occurred to myself only this last year, that of an extremely sensitive tumour which I removed from the lip, and which, on investigation, my friend, Mr. Boyce, showed me was teeming—although it was a thick piece of epithelium, with many layers where there plainly ought to be only a few, accumulated layers of epithelial cells growing from the rounded to the oval, and from the oval to the flattened form—with these little nerve filaments, exquisitely minute, running up between the rounded cells to reach the oval cells and others, and finally becoming lost, because the epithelium had done its work and was about to be cast off. We know it has been demonstrated that a nerve, a commanding thread, an electric cord, as it were, passes into each individual cell; and what can be assigned as a function to it except that it is the governing cord, the coördinating fibre of its life? The blood nourishes the cell; the lymph carries away its wasted or unused material; a duct conveys away its secretion. But what does this nerve fibre do? It gives sensitiveness, no doubt, in its own cell way, of the presence of external stimuli, not necessarily a consciousness of sensation. With a cut nerve there is no longer any sensation, but the cell is not destroyed. In the salivary gland the part from which the nerve is divided may still go on secreting; so may any other gland for a time, so long as the cells are in function and in health; they dwindle by degrees, but for a time may go on secreting. But the final control of the health and of the life of a cell must, I contend, be in the nerve filament; for I do not see in what other way it can be materially governed. In science we may not assume non-material agencies. We may try to conceive whatever there may be behind—that is, the great unknown,—but we are bound in this world to follow out material agencies, and not to be satisfied until we have traced every function through structure. After that function, and behind that, comes life, the original endowment which we can never understand and hardly approach; but once life has been imparted, it goes on in structure, and we can find out in structure everything which results from its evolution and disturbance.

Has anyone examined from this point of view the epithelioid cells of cancer? I have myself, and I cannot believe that when they are aggregated into these irregular masses and groups, when they penetrate along the lymphatic spaces as they do through the body, when they reach the lymphatic glands far away from any primitive nerve fibre which could possibly have once reached them, when they advance into distant tissues, when they recur in a cicatrix,—I cannot admit, without actual demonstration, that the nerve fibres go on with them, so as to regulate their disordered and anarchic government. We want to know this, and here is work for the microscopist, to study carefully in a recurrent growth, in an early yet well-developed growth in a lymphatic or a lymphatic gland, the connexions of possible nerve fibres with the epitheloid cells. We want an answer to that. I feel strongly upon this point. I suspect what the answer will be, from my own rude investigations. I can hardly suppose that in the pell-mell agglomeration which we see in a cancer, each cell has its own proper guiding nerve fibre. How and why may we suppose that these nerve fibres are severed? It may be simply from the extreme rapidity of the cell-growth; and this may afford one indication of the mode in which cancer originates from a comparatively healthy tissue. In the healthy formation of epithelial tissue the nerve tissue would still remain in it; but in the overgrowth excited by some long-continued injury at last the cells break away from the nerves; they retain the power of multiplication within themselves, because each cell, like the cell of a minute infusorial creature, contains the quantity and kind of material which is necessary to build it up, but it does not retain the governing tissue with its power of control—that must be retained by a centralised nervous system; and as soon as you pass from the unicellular animal to animals composed of many cells, you find the governing power, the control, in the presence of a nervous system. Now, why not try to solve this problem? It seems to me to lie at the root of a great deal of the explanation of cancerous growth. Even if it be shown that the primitive stimulus, the primitive irritant, is not a common irritant but a specific one, even if it be a bacillus or a bacterium, or any of those minute bodies which are supposed by some to be responsible for cancerous growths, even then the severance of the cell from its nervous connexions may lie at the root of the explanation of this anarchical form of growth. Of course I put it as a theory, as my own impression; I do not think it is established. I should be sorry for anyone to say that I believe it in that sense; but I do think there is a great deal in it, and that unless we can ascertain whether the nervous filaments do enter the cells or not we are ignorant of a fact which we ought to know; not only the growth of the nuclei, the characters of the nuclei, the mode in which they develop the cell itself, but the mode in which the cells are connected, so as not to be anarchical, should be made a matter of immediate and profound investigation, to say nothing of influencing changes occurring in the great nervous centres themselves.

We come next to the further question, What are the products of these cells? I mentioned that they were acid, but that is a very poor result; we must know more about them, in what tendency they run, what are their secondary products, and what will be the action of those products upon surrounding tissues. They may be the very agents which destroy the nervous connexions; they may, at all events, be the very products which alter the stroma around and help to dissolve materials, and carry them into the lymphatic spaces and channels so as to cause a dissemination of the disease. It is not necessary that a very large particulate cell should pass into a lymphatic channel in order to spread this disease; a very minute nuclear particle might suffice, or such particle might not be a particle of the cell itself, but a foreign product, though my own view is that it would be a particle of the cell itself.

Now let us go on to the question of the *stroma*. The stroma of cancer is acknowledged to be one great peculiarity of it, as distinguished from the basis of an ordinary sarcomatous tumour, distinguishing it from sarcoma as much as the sarcoma cell itself is distinguished from the epithelioid cells. This stroma of cancer is a very remarkable substance. Long ago, in my own lectures, I defined it as a spinous-looking structure. When you washed away the cells and disclosed the little loculi of the cancer, you found a crisp, fibrous, sharp, clear, bright-looking tissue, absolutely different from the areolar tissue of an ordinary tumour or from healthy fibro-areolar tissue, yet no doubt developed from it. Its bands are hard, glistening, vitreous-looking, and break off short; it does not run in the beautiful undulating lines of areolar tissue, but encompasses the cell-masses with curved bands of a most peculiar kind. It is always developed *pari passu* with the quantity of cells, provided the tissue in which these cells are developed is a firm tissue—the tissue of a firm organ. It is harder in the mammary gland than in the salivary gland; it is harder in the salivary gland than in the liver; it is softer still in the lymphatic glands. Of course, the lymphatic gland has a stroma which is capable of this remarkable transformation. I think this stroma has not been sufficiently studied. I do not think we know enough

about it. Its curious, hard, shining, glassy character is further associated with that peculiar crispness when cut, that creaking sensation which in certain advanced stages becomes almost bony to the scalpel edge; it resembles in a remarkable way not a highly organised and regular tissue, but, in certain characteristics, the periosteal fibres of a growing bone which is developed from membrane, not from the cartilaginous basis of the bone. In Quain's Anatomy you will see something which will remind you of the spinous character of this tissue, of which I hope to be able to show you some representation on the screen. In Quain's illustrations there will be found numerous fibres. I do not say that they are like the stroma of cancer, but the stroma of cancer shows a sort of likeness in that direction.

And this leads me to say that chemistry will herein aid us, because long ago it was pointed out that cretification is one of the conditions apt to follow upon the growth of cancer, especially in the breast; and the cretification or hardness of the stroma is accompanied by a deposit of lime salts in the little alveoli themselves. So that here we find hardness and crispness and a likening to periosteal growth, associated with the presence of lime. Many years ago I had a special analysis made for me of this peculiar tissue, and the result was that its ash contained three or four times the quantity of phosphates that the ash of an ordinary piece of mammary gland did. There was nothing remarkable in that, because the fact had been demonstrated by the microscope and shown by Dr. Hughes Bennett many years ago, in beautiful illustrations of this transformation of tissue into a kind of calcified substance. Now this is extremely interesting, because it raises the question, What is the function of stroma, and what is its origin? Is the stroma a part of the cancer? Is it part of that extraordinarily powerful agent which invades the body and which produces these diseases in the healthy tissue, or is it not? Now, it seems to me there are very widely different opinions here—or, rather, one which is more commonly expressed than the other. It has been held by most writers that the stroma is a mere web that holds the cancer cells; that it is produced by the irritation of those cells; and that by degrees it may consolidate itself into such a hard, firm form as to crush the very cells under the influence and agency of which it has been developed. This, of course, leads the mind at once to a possible mode of killing these forms of disease; we cannot say that it will lead to that, but of course that is an inference easily and naturally drawn from it. But what I want to do is to have this stroma investigated; I want the anatomist to pay a little more attention to it to show in what it consists. It is utterly unlike the wavy forms of the filamentous tissue; it seems to be more like bands crushed up together, moulded as it were together, pressed into an indifferent form (if I may use the word), and then impregnated with earthy salts in some peculiar way. Now the acid secretion of the cells, finding its equivalent in earthy matter, may penetrate this peculiar tissue, may give it its character; and so we may learn something more of it if we know its chemical constitution and its relation to the surrounding areolar tissue. I shall be able to show you, I hope, some progressive changes which take place in areolar tissues towards the formation of this peculiar stroma. Here is a compressed mass of cancer cells with stroma passing through it. You see the peculiar stroma, with its compressed nuclei branching through it. You will see how extraordinarily different it is from the ordinary areolar tissue. I think myself that the history of this stroma has been neglected. I think that we may learn a great deal by a more patient and thorough investigation of the structure, the mode of formation, and the chemical composition of the stroma. Through these channels, through a more minute study of the cell growth itself and its relations, and a more deep and profound study of the stroma, I think there are still problems that require to be answered; that they will be answered in time I feel certain, and I trust that those answers will contribute to lighten our task in combating this painful disease.

Reserving till after the lecture the demonstration of the remaining figures, I omit what I hoped to say about the blood and lymph, and add a word or two about the mode in which this cancer invades the surrounding tissues. If the cancer cells secrete a substance in superabundance—and that they have secreting powers is certain, for that is their primitive function,—if they secrete something which induces the formation of the stroma, it may also serve to dissever the element of the cells themselves, and help to carry them on into the lymphatic spaces as they are called, and so into the lymphatics, and onward to distant parts. But its fibres may also break down the limits between the cancerous formation and the surrounding tissue; they may be the channels through which the disease spreads; and therefore, I say, the more we know of their nature, the more we may hope to arrive at a time when possibly, by remedies, we may stop the growth of the cell, stop the growth and production of these unwholesome products, and stop the invasion into the surrounding tissues, and perhaps—if it can be shown that that is a right procedure—to harden the stroma and try to crush the cells in their nests. The invasion of cancer must come about, I assume, in this way. The elements must pass into the intervals between the surrounding tissue; they must get into the lymphatics; they must reach the lymphatic glands. The proof of this is that the lymphatic glands in the neighbourhood are always the first to be infected, and there it is again we ought to study the remarkable constituents of cancer growth.

As to the recurrence of cancer—I do not mean the spread of cancer through the system or by the agency of lymphatic glands, and so into the blood,—but I speak of local recurrence after the removal of the cancer; this also affords us the most advantageous mode for investigating the isolated properties of the cell and stroma.

In recurrent growths the cells abound; in recurrent growths the stroma is scanty; in recurrent growths, therefore, we should find the anatomy and physiology, so to speak, or the pathology, of the cells much more easily followed than in the early growths. There cannot be a doubt that this recurrence very frequently takes place; and this is one important practical point which I wish to impress upon you if I can, that the true recurrence which takes place locally and on the margin of the site of old disease begins in atoms of diseased tissue which have been left behind. It is possible for an operator to say, "I know I completely removed this tumour, and it is utterly impossible anything can remain behind." But when you consider the number of lymphatic spaces, the smallness of the diseased units, and the facility with which these will creep through the healthy tissues, and the impossibility of detecting with the naked eye how far they have gone, you will see that it seems much more probable that the recurrence should be due to a local extension of the primitive disease rather than that it should be a new growth altogether. If it comes in a lymphatic gland, if it comes along the path of lymphatics, that is obvious; but we speak of recurrences near the growth, and those recurrences I have lately been studying, and I quite agree with Heidenhain that they are on the margin of the old incision. In this early recurrence, a very small one, you will find that the growth is not in the cicatrix; the cicatrix is composed of dense fibroid tissue like an ordinary cicatrix; but exactly in the margin between that and the healthy tissue there is found a growth springing up. It may invade the cicatrix, but it goes a long way into the surrounding tissue first, and I have never found one in which I have seen it actually come in the cicatrix, but always at the margin, or what is sometimes very deceptive, directly *beneath* the scar, which it may then invade. But suppose it did come in the cicatrix, what is the cicatrix? The cicatrix is a product of the body; it is a modified form of areolar tissue produced after accident, and intended not to kill, but to heal, to repair; and therefore it is a part of the frame, and is likely to contain its little channels and paths through which a morbid growth may extend. It is possible, therefore, that from the margin of the pre-existing tissue the cicatrix may itself become at once involved; but it does happen that the small recurrent nodule is not in the cicatrix, but in a thickened part of the surrounding tissue loaded with stroma. Now here, again, the lesson that we learn is a perfectly obvious one, one which I myself have learnt a long time ago; and that is to disregard the neatness of an operation, the closeness to the tumour, but to sweep far away beyond what you really estimate may be the seat of the disease. Do not be timorous and hesitating; do not care about a scar, but sweep away to a great distance; follow the tissues up specially towards the axilla, especially when the tumour is on the axillary side of the mammary gland. Remember also that there are deep-seated tumours in the mammary glands, and that these usually have their lymphatics, not going to the axilla, but through the

intercostal spaces and directly into the thorax, or through the pectoral muscle, along under that, and reaching cervical or thoracic glands beyond. The position, therefore, of the growth in the mammary gland is of extreme importance. If it be central, you do not know where it may extend and affect the lymphatics; if it be to the outer side, which is more commonly the case than in any other position, it is nearly sure to affect the axillary glands; if it be deep seated, it may pass into the intercostal spaces through the pectoral muscle, even long before there is any lymphatic mischief in a lymphatic gland, within the thorax or in the neck. The spaces between the muscular fibres and the spaces under the muscular fibres may be involved; this I have seen over and over again in a most characteristic way. Mr. Boyce has come here to my assistance, and gives demonstration of the fact that the cancer cells do really impregnate, as it were, the deep-seated muscular tissue and the under space between the muscular fibres, and unless these are removed a return is almost sure to occur. The old form of sweeping operation therefore should be always held in respect. I believe that its good results, which were perfectly astonishing, depended on that. It does not matter about deformity—it is the preservation of the patient's life; and a very sweeping use of the knife is better, I would say, than any cautery, any electricity, any form of temporising with caustics, with pressure, with cold, or with any such means. They may answer, and in future that great force of electricity, now again on its trial in a special form by Dr. Inglis Parsons, may come to be specially useful. We admit its value, and wish it all success; but at the same time remember that it will only destroy what it reaches, and although it is extremely remarkable to find that the cancer tissues seem to dwindle under its influence whilst the healthy tissues resist it, still, remembering the acid juice of cancer, remembering the mode in which it penetrates into the vacuities of the living tissues, what a tendency it has towards them, and remembering that in spite of electrical destruction this may go on, and then considering, again, the requisite repeated application of electricity, which comes to be like the repeated application of a cautery of a simple character—remembering all this, I say we may find that it will ultimately be regarded as inferior to the knife.

The knife, which sounds so cruel, but which is not indeed cruel under the influence of anæsthetics and the use of antiseptic treatment — the knife is the most feasible method of removing these growths. After the knife, however, I certainly in my own practice, where I have the slightest doubt, apply some kind of acid caustic. I do that, and I have found it extremely valuable I have not cumbered this lecture with personal records, but when I look back to my own experience I find some in which accidental hæmorrhage came on, and in which I had to undo a wound and apply powerful caustics — perchloride of iron, and perhaps chloride of zinc. There are special cases in which I could point to persons living and now perfectly well, eight, nine, ten, eleven, and twelve years since operations of that kind. Comparing these cases with the hesitating use of the knife which formerly I myself practised, keeping as near to the growth as I was told to do by my teachers, as near to the tumour as possible, without of course leaving any ostensible mass behind, still keeping close to it,—when I compare these later cases with those I had under observation twenty or thirty years ago, I say their success is very remarkable.

It is truly gratifying to find that success follows in proportion as you remove tissues, in proportion as you work up to the axilla and remove the axillary glands, and even cauterise the base of the wound if there is the slightest sort of suspicion about it. The gratification which one feels at the success of these operations convinces me that that is a most important practical point, and a lesson never to be lost sight of.

Now, Mr. President and Gentlemen, the hour is at hand. Of course you will all understand that a lecture of this kind is but playing on the surface of a great subject. If it is ever published, I may venture to append or introduce here and there illustrations that will carry, perhaps, conviction to some of your minds who may not quite have followed me in all I have said. But, in the meantime, I thank you for listening to me for this hour, and I invite your attention to the diagrams and to the preparations which are upon the table.

ABSTRACT OF AN

Introductory Address

Delivered at the City of London Hospital for Diseases of the Chest,

By SIR JAMES RISDON BENNETT, M.D., &c

THE lecturer commenced his address by giving an interesting account of the circumstances under which the hospital (out-patient department) was established in Liverpool-street in 1848, the necessity for the establishment of such an institution being shown by the fact that in the year 1846, of a total number of 49,089 deaths in the metropolis, nearly one-third occurred from consumption, other diseases of the lungs, or from diseases of the heart and organs of circulation; whilst in the following year (1847) the proportion was still larger, and exceeded one-third of the whole mortality.

The work of the medical staff at Liverpool-street soon became so great that it was necessary to appoint a clinical assistant, and the present President of the Royal College of Surgeons, Mr. Jonathan Hutchinson, was the first appointed, and worked for some time there with the lecturer and his colleagues. The first assistant physician appointed, and whose name appears in the report for 1855, was Dr. (now Sir) Andrew Clark, the present distinguished occupant of the presidency of the Royal College of Physicians. He left in the following year, finding it impossible to continue the work along with that of the London Hospital. He was followed by Dr. Edwards of St. Bartholomew's Hospital, and Dr. Stephen Ward. The first surgeons to the hospital were Mr. Erichsen and Mr. Hilton; and the first physicians, Drs. Peacock and Bentley and Sir R. Bennett. The hospital, therefore, may boast of having had two Presidents of the Royal College of Physicians and three Presidents of the Royal College of Surgeons. In 1851 the first stone of the hospital was laid by the Prince Consort, and in 1855 the building was opened for the reception of patients. At the same time the City branch in Liverpool-street was closed.

Sir James Risdon Bennett then continued as follows:—That special hospitals and specialism in medical practice are in danger of being carried too far and proving injurious, both to our profession and the public, I have long felt, whilst I am quite ready to admit that medical science has greatly benefited by the special study of particular disease, and that in the present day original investigation must be limited to certain departments of the wide field that our science now occupies; but that the establishment of special hospitals for large classes of disease, like those of the chest or of the nervous system, has been fully justified by their history cannot, I think, be doubted. Putting aside the question how far it may or may not be desirable for students during their curriculum of study to confine themselves to their general hospital, there cannot, I think, be any doubt that subsequently it is of the greatest advantage to them to be able to acquire a more intimate and practical acquaintance with particular classes of disease. That we have gained valuable aid by the introduction of cod-liver oil, and perhaps some other specific remedies, will be generally admitted; but that cod-liver oil has justified the encomiums passed on it by my namesake, its introducer, and by such authorities as the late Dr. C. J. B. Williams, is at least open to question. Its utility in scrofulous disease is doubtless often very great, and the bacteriologists will perhaps give us further light on the relation between scrofula and tubercular phthisis. In what way and to what extent the discovery of the tubercle bacillus may lead to altered and improved treatment of phthisis remains yet to be seen. The field of inquiry is doubtless a very enticing one, and cannot fail to be investigated by some of my audience as well as by others. My own opinion is that we have yet much to learn regarding the true relations between the microbe and tubercle before we can hope for much therapeutic aid from the discoveries already made. Prevention is, however, better than cure, and in this direction hope may arise. How fertile is the source of new remedies, and how largely do they augment the income from the penny post and the advertising sheets! But because some at least do afford

the clinical physician valuable aid at the bedside, does it follow that we should so entirely lose faith in our old friends that we should altogether abandon them? I suppose most old practitioners think that they are not justified in so discarding their own past experience and that of their predecessors as to abandon altogether the use of the lancet. At all events, I would ask you to look at this question of bleeding from a clinical point of view, and not solely from the physiological or pathological side. I will cite only one instance from my experience in this hospital in justification of this advice. A man of large frame, beyond middle age, whom I see now distinctly before me, was the subject of pulmonary emphysema and bronchitis. He had been some little time in the hospital, and therefore in the most favourable surroundings, but without improving much, when, either from some change in the weather or other cause, he became suddenly worse. I found him at my visit heaving and gasping for breath, with livid features and cold extremities, his heart and circulation rapidly failing, and scarcely conscious—in fact, to all appearance, *in articulo*. Almost every remedy and appliance that could be thought of had been tried without avail, and swallowing was no longer possible. I hesitated for a moment and expressed my hesitation to the bystanders, then ordered him to be bled. After obtaining with some difficulty six or seven ounces of blood his pulse and consciousness returned, the signs of venous congestion greatly diminished, and I saw that his life was saved. He lived for some time after, though he ultimately died. Now it may be true that neither emphysema nor bronchitis is to be cured by bleeding, but it does not follow that life may not be saved thereby. Modern experience may have shown the inefficacy of bleeding as a means of arresting or curing acute inflammation of heart and lungs, and its injurious and even dangerous effects when carried too far and injudiciously employed, but I am convinced that in certain stages of acute disease and in certain conditions of the patient it is a remedy of unquestionable value, and I can call to mind instances in very recent times where it has not only importantly modified the progress of the disease, but manifestly saved the life of the patient. The advantages that have been gained through the aid of surgery in some important forms of chest disease and in certain stages since the opening of this hospital are very great. I need only refer to the treatment of pleuritic effusions, and the improved measures in the adoption of paracentesis, by which very many lives have been saved. It is not so very long ago that this operation was only had recourse to in extreme cases, and its success in such instances was often frustrated through imperfect exclusion of air from the pleuritic cavity. It is now available and had recourse to with the utmost confidence in numerous instances. I remember well the first case in which I ordered an incision to be made and a drainage-tube to be introduced into a large suppurating cavity in the upper portion of the right lung, in an advanced case of phthisis, and the subsequent employment of weak carbolic acid syringing. To what extent similar practice is now adopted I know not, nor what would be the general verdict as to its use. In the rich field afforded by such a hospital as this, worked by men of acknowledged competence, in mutual co-operation, important and trustworthy results might be attained. Let me illustrate my meaning by referring to the subject of heredity, of the greatest interest in connexion with tubercular disease, on which there has been considerable diversity of opinion, and to which attention is now again perforce directed, owing to recent discoveries in bacteriology. If we are to assume that tubercle is always associated with a specific microbe, and even go so far as to admit that the bacillus is the *vera causa* of tubercle, the question would still arise, Is there, or is there not, a special tendency to phthisis in certain families, and not in others? If the question be answered in the affirmative and the bacillus theory adhered to, we have to ascertain why the bacillus should prove so fatal to certain families and be practically innocuous to others. A very wide field would be open for inquiry in what soils is the bacillus cultivable and in what sterile? If we limit the term heredity to susceptibility or proneness to a particular disease, my experience would lead me to say that there can be no doubt that phthisis must be classed with hereditary diseases. But, on the other hand, I remember very well meeting with examples in the out-patient practice of this hospital that made a deep impression on me as supporting the view that this susceptibility may be acquired, and attain its maximum of intensity in one generation. A Scotch family, in whom after the most careful inquiry not a single case of consumption had been known or in any collateral branch, emigrated from the highlands of Scotland to the East-end of London. The family consisted of father, mother, and six or eight children, all advancing towards or having attained adult age. Within, I think, two years of their arrival in London the father and all the children, except two, had fallen victims to rapid consumption. Judging from the heart-broken mother and one son who came to the hospital, and from the mother's account of her husband and family, they were typical specimens of athletic Highlanders, and they were clearly steady, well conducted, industrious people, struggling in life, but not having suffered absolute poverty. Most physicians of much experience must have met with similar cases, illustrating the fatal susceptibility to phthisis in some families. On the other hand, there are not wanting facts and considerations which indicate remarkable insusceptibility to tubercular disease. My experience bears out that of many others—that the Jews, as a race, are long-lived, and that among them phthisis is a rare disease. At one time I saw a good deal of the Jews both in private and public practice. My friend, the late Dr. Livingstone, the illustrious African explorer, stayed with me on his return from his first great journey across Africa, and told me, among other observations relating to the diseases he had met with, that phthisis was so rare among the natives that he scarcely remembered ever to have seen a genuine case. But that the black races when residing in this country readily fall victims to the disease is well known, and some of the most remarkable examples that I have seen of tubercle distributed throughout the organs and tissues of the body have been in negroes of good social position and education. How far such cases are referable to climatic influences or change of food I know not; but the reference I have made to the Jews and other races leads me to say that I have long felt that the whole question of food in its relations to tubercle and some other diseases demands further careful investigation. One point, I know, received special attention from Mr. Jonathan Hutchinson in the early days of this institution—viz., the presence or absence of fats in the diet of consumptive patients. The Jews, it is well known, are very particular as to their food, especially meat, and that, among other things, they carefully abstain from the use of pork. Will my younger colleagues smile if I suggest that, among other bacteriological experiments, they will ascertain whether the tubercle bacillus likes or dislikes an infusion of fresh, so-called healthy pork? For, as bacteriologists tell us that a particular microbe is only cultivable in particular soils, may we not be able from this to derive information as to the character of the tissues and secretions of the body, that would be most likely to afford support to the microbe, and the kind of diet it would be most desirable to adhere to, in order to counteract the tendency of tubercular disease? I trust that my friend, Dr. Heron, or others, who may here carry out any such investigations, will not be dismayed by the new and important department now opened in the field they are studying, since this, among other requirements, will demand the most profound psychological studies. For according to M. Binet and others, micro-organisms have a psychical as well as a physical life, and the psychology of the tubercle bacillus will therefore demand careful study. If, as we are told, microbes are endowed with the intellectual faculties of pleasure and pain, fear, memory, and conscious selective discrimination, we may look for important light to be thrown on the question why certain constitutions and certain organs are by preference selected for habitation by such intelligent creatures as the protozoa. The fertilising action of certain spermatozoids it has been said may depend on their being attracted or repelled by different scents or chemical constituents, and there is certainly nothing improbable in the supposition that similar influences may operate in the case of other minute organisms, even if the inference should not be justifiable that the minutest are endowed with psychical faculties.

The reduced mortality from phthisis as shown by recent reports of the Board of Health seems to prove that it is due to improved sanitary conditions of certain localities where the mortality was formerly greatest, especially in connexion with improved subsoil drainage. Such facts, I need not say, are by no means opposed to the microbe theory and contagion. It is clear that the adoption of any theory of the contagiousness of phthisis will necessitate special regulations

for the separation of consumptive patients from all others in any hospital for diseases of the chest. One line of inquiry you will not, I fear, be able to follow here, and that is whether tubercular disease, like anthrax, can be annihilated by protective inoculation. And yet, if the microbe theory of phthisis, pure and simple, be established, there seems no reason why protective inoculation should not prove as successful in the one murrain as the other. To this end I presume another Pasteur or Koch Institute will be needed. And assuredly the man who shall succeed in placing consumption in the same category with anthrax will beat the record of Jenner and the small-pox. Anyone who has seen much of consumption must have found reason to doubt the correctness of the common belief that mere feebleness of constitution alone is the main determining cause; or, on the other hand, that robustness of frame and constitution alone is a preservative. How frequently do we see, as in the instance quoted, vigorous, athletic men, leading a healthy, active life, develop tubercular disease running a rapidly fatal course. If there be an essentially tubercular habit of body, as in the case of gout, ought we not ere this to have acquired more knowledge of its characters than we possess? It is quite true that an experienced eye in numerous instances finds such physical and constitutional characters, in apparently healthy persons, as to convince him that in all probability they will die of phthisis, and are inadmissible as candidates for life assurance. But I have again and again passed lives for assurance whose physique, personal and family history, and social position and habits were free from objection, who have nevertheless died prematurely from consumption. In conclusion, I would venture again to impress on you the advantages here presented for acquiring strictly clinical information and therapeutic knowledge as distinct from pathological investigations, and the rich field you have for advancing our knowledge of the etiology of phthisis and such questions as heredity. That the clinical lectures and demonstrations which you propose to give will be appreciated and prove of the utmost value to those who may avail themselves of them I have not the least doubt, and cordially wish you success in your good work. If I have disappointed your expectations, as I fear, in occupying your time, by what you may call conversational chit chat on a variety of topics rather than by scientific discussion of any one of the grave problems you are called to study, I can only cast myself for forgiveness on your good nature and friendly disposition.

THE PATHOLOGY OF CHOREA: A SUGGESTION.

By ARCHIBALD E. GARROD, M.A., M.D., M.R.C.P.

THE manifestations of rheumatism may be arranged in certain groups, the members of which are apt to occur in association in the same patients, and in one such group are included erythema, sore-throat, and arthritis. It is a well-known fact that in cases in which an eruption of erythema is the most conspicuous feature of a rheumatic attack joint lesions of greater or less severity are usually present, whilst endocarditis and pericarditis are comparatively rare; and the same is true of rheumatic sore-throat. There is, moreover, an intimate connexion between sore-throat and erythema, for at the commencement of an attack of erythema some soreness of the throat is often complained of, even when there are no articular pains.

Now, in its rapid development, and equally rapid resolution, as well as in the manner in which it disappears after death, often leaving no trace of its presence, the arthritis of acute rheumatism has many points in common with cutaneous erythema, and it is interesting to note that Monneret long ago described this form of arthritis as an erythematous inflammation. The rheumatic sore-throat, which may either assume the form of injection and swelling of the palate and pharynx or of well-marked tonsillitis, was regarded by Laségue as an erythema of the fauces, analogous to cutaneous erythema. It would seem then that there is some reason for thinking that these lesions so often occur in association, because they are processes of similar nature, although involving different structures. This conclusion receives considerable support from the study of another group of rheumatic lesions, of which endocarditis may be selected as the typical example. The lesion most intimately associated with endocarditis is the formation of those remarkable subcutaneous nodules of which M. Meynet of Lyons was the first to recognise the rheumatic origin; and, as Drs. Barlow and Warner have shown, there is not only a clinical association between nodules and endocarditis, but, further, the changes in the subcutaneous fibrous tissues, of which the nodules are the outward signs, are closely analogous to those which result in the formation of vegetations upon the valves of the heart. Similar changes have been described in other fibrous structures, such as the pericardium, and in a note published in a recent number of THE LANCET, Dr. Angel Money suggested that the formation of endocardial vegetations and of subcutaneous nodules are merely two phases of a much more general process which may involve any of the fibrous structures of the body. There is good reason for believing that chorea is in many cases a manifestation of rheumatism, and, like nodule formation, it is intimately associated with endocarditis; for chorea and endocarditis are often present together in cases in which no joint lesions are developed under observation, and no history of previous arthritis can be obtained, and in such abarticular cases subcutaneous nodules are sometimes present. Again, the class of patients most subject to chorea is precisely that in which there is most tendency to nodule formation, for both chorea and nodules are almost confined to children and young adults, and both are far more commonly met with in girls than in boys. Lastly, the duration of an attack of chorea is usually somewhat the same as that of the process of nodule formation.

These clinical observations seem to afford some basis for the hypothesis that we have here yet another example of the association together of lesions of similar nature, and that possibly chorea and endocarditis so frequently appear simultaneously because chorea is the outward sign of a lesion of this same group, and has its origin in a temporary overgrowth of connective tissue in the nerve centres.[1]

This hypothesis has the advantage of assimilating the pathology of chorea to that of certain diseases in which tremor is a conspicuous symptom; and at the same time it offers an explanation of its so frequent connexion with the rheumatic state; whilst, unlike the embolic theory, it does not involve the presence of antecedent endocarditis. Some observers have noticed increase of connective tissue in the brain and spinal cord in fatal cases of this condition, and I would suggest that such changes should be further sought for by those who have opportunities of examining the nerve centres of patients who have died during an attack of chorea.

Cavendish-square, W.

EFFECTS OF SULPHONAL.

By R. PERCY SMITH, M.D., M.R.C.P.

OF the value of sulphonal as a hypnotic there can be no question, its beneficial use having been recorded in numerous cases, especially in insanity; and the long-desired hypnotic which should leave no bad after effects and should not interfere with the patient's appetite would appear to be almost attained. Few instances of any action other than simply a hypnotic one have been recorded, but giddiness has been mentioned by some observers, and in the *British Medical Journal* for April 20th last is mentioned an observation by Dr. Perregaux of Montreux of "ataxic disturbance of certain fine movements of the hand," and the question raised whether a prolonged use of the drug can be altogether harmless in regard to the cerebral cortical functions. Dr. Samuel Garnier publishes in the *Annales Médico-Psychologiques* for January and March of this year a paper giving his experience of the drug; and, referring to its action on locomotion, mentions two cases, in one of which "la malade présentait une démarche maladroite et même chancelante," and in the other "il y avait dans la station un aspect non équivoque d'ivresse légère." He asks the question whether these phenomena were due to a

[1] The possibility of such an origin was suggested by Dr. Cheadle in his Harveian Lectures, 1888, p. 67.

direct influence of sulphonal on the cortical motor centres, or whether they were due simply to vertigo, and refers to the difficulty of satisfactorily settling this point. He further quotes Kast as having noticed in dogs a loss of power in the posterior limbs shortly after administration of the drug comparable to that produced by the removal of the motor portions of the cerebral cortex. Dr. Otto of Dalldorf, in the fourth part of the *Allgemeine Zeitschrift für Psychiatrie* for 1888, publishes cases in which he has used the drug, in some of which the patient was not able to walk alone, but this was generally after doses of five grammes. At the meeting of the Medico-Psychological Association in York in March last, in the discussion on a paper by Dr. Watson, of the Govan Asylum, Dr. Yellowlees mentioned that he had met with giddiness as a result, but no other speaker had met with any detrimental effects.

The following cases of temporary loss of power in the lower extremities, which have occurred in Bethlem Hospital since the drug has been administered, appear to bear upon Dr. Garnier's question.

CASE 1.—M. B——, single, aged forty-five, suffering from acute mania with great violence and dirty and destructive habits of eight months' duration. On Dec. 8th thirty grains of the drug were administered at bedtime, to be continued every night. This was done till the 30th; but, no improvement taking place, it was discontinued. No bad effect was observed on this occasion. On March 7th sulphonal was resumed at night in the same doses and continued till the 15th. During this second administration about six hours' sleep every night was obtained, and the excitement became less both by day and by night; but the medicine was discontinued, as the patient seemed to be unable to stand and spent the day lying about on couches or on the floor. No amount of leading questions could elicit from her any complaint of giddiness, her replies being irrelevant and incoherent. The symptoms passed off in twenty-four hours after the drug was suspended.

CASE 2.—M. J. S——, married, aged thirty-nine, suffering from acute mania, with great excitement and sleeplessness and destructiveness. From Feb. 5th to the 19th she took thirty grains of sulphonal every night at bedtime; six hours' sleep resulted every night, and she was quieter during the day. The administration of the drug was then suspended till March 5th, when it was resumed every night in the same dose, the patient having again become sleepless and noisy. On March 20th she was noted to be "in a drowsy stupid condition, almost as if half drunk, unable to stand or walk properly." No sulphonal was given that night, and the next day, it was noted, "she has recovered from the effects." The knee-jerks were present and normal. After the suspension of the drug she continued to have six or seven hours' sleep every night, but she remained somewhat excited and incoherent. On April 1st she was noted to be relapsing and sleeping badly, and on the 7th thirty grains of sulphonal were ordered to be resumed every night. On April 15th it was noted: "Is much quieter, but to-day is in somewhat the same condition she was in previously, with apparently loss of motor power in the legs, as she rolls about when set on her feet, and apparently prefers lying on the floor." After this the excitement passed away, and in a month she was sent to the convalescent hospital. While excited no reliable information could be obtained from the patient as to whether she was giddy or not when apparently suffering from loss of power in the lower extremities, but on recovery she appeared to have a very clear memory of the attack, and stated that she had not suffered from giddiness, but that she had felt powerless to stand or to use her lower extremities effectively.

CASE 3.—M. M——, married, aged twenty-nine; third attack of insanity, following the birth of twins. Suffering from acute mania, with obscenity, destructiveness, and sleeplessness. From Jan. 29th to Feb. 19th she took thirty grains of sulphonal every night, the result being an average of six hours' sleep and a diminution of excitement by day. The administration was then suspended till March 5th, when, in consequence of a return of excitement, it was resumed and continued till March 21st, on which day it was noted: "Has slept generally seven hours after sulphonal, though without mental improvement, but without ill effects until to-day, when she had the appearance of being drunk, tumbling about and walking unsteadily." The next day the symptoms had all passed off with the omission of the drug. This patient has never been able to give a clear account of her sensations when fully under the influence of sulphonal, so that we cannot tell whether she was giddy or not, but she made no complaint of it at the time. She has since been excited again, and a readministration of sulphonal has produced no bad effects; but it has been suspended at intervals to avoid the production of loss of power.

CASE 4.—E. L. G——, single, aged fifty. Recurrent mania with intervals of health, the attacks of excitement being generally preceded by short periods of depression. On July 5th last she began to complain of sleeplessness, depression, and a feeling of impending illness. On the 9th sulphonal was ordered every night, in doses of thirty grains. On the 22nd she complained of feeling giddy, and also of inability to walk with any ease, her legs seeming to be too heavy. As the patient was perfectly intelligent, although depressed, one could rely upon her statement, and she was confident that the difficulty in walking was more than could be accounted for by the giddiness, and said there seemed to an actual want of power in her legs. The symptoms passed off with suspension of the drug. As it is important to try to ward off an attack of excitement in her, sulphonal has been resumed in doses of fifteen grains, producing sleep, but no ill effects.

CASE 5.—M. A. M——, single, aged fifty-one, suffering from melancholia, with hallucinations of hearing and sleeplessness, getting only two or three hours' sleep at night. On May 27th the patient was ordered thirty grains of sulphonal every night. After three doses, which produced nine hours' sleep every night, she became quite confused, walked with her eyes shut, though not asleep, did not know where she was, had to be washed and dressed, and could only walk with assistance, seeming to be unable to stand alone. The symptoms disappeared with the suspension of the drug, but the patient cannot give a clear account of her feelings at the time. She says that she "lost the whole of one day," and cannot remember any feeling of giddiness or weakness. She only knows from the statement of her attendants that she had to be dressed and led about. Sleeplessness having returned she has lately (since July 21st) had sulphonal at night in fifteen-grain doses with no ill effect.

The observation of these cases has given me the impression that the loss of power noticed was not due merely to giddiness but to some interference probably with the cortical functions. In two of the cases the patients were confident that their condition was not merely due to giddiness; and in the last case mentioned the staggering and apparent loss of power were associated with a complete mental confusion. In all cases suspension of the administration of the drug was attended by an immediate disappearance of the unpleasant symptoms, and in some the readministration has produced no bad effect. After the production of such symptoms, however, it is perhaps better if it be thought advisable to resume the drug to give it only every other night, or at least to intermit its use occasionally. In one case recently under my care, in which a patient suffering from acute puerperal mania with at the same time phlegmasia dolens of the left leg, in which there was fear of the dislodgment of clot, I gave sulphonal in doses of thirty grains twice daily for one week, in order not merely to give sleep, but to maintain a recumbent attitude; and this was effected, the patient very soon seeming to have no desire to attempt to stand, but there was no complaint of giddiness. No interference with the heart's action or the appetite resulted, and the patient recovered perfectly after only ten days' excitement, expressing herself as having slept through her excitement. No bad effect seemed to have resulted, and she has since been discharged recovered. Patients seem to vary considerably in susceptibility, Case 5 being very rapidly affected. It would be more satisfactory to know the opinion of those who have given the drug to sane patients, whose statements could be implicitly relied upon as to the presence or absence of giddiness in association with loss of power in the legs, but I am not aware whether any such observations have been published. My own feeling, judging from the use of sulphonal in the insane, is that it does in some cases interfere with the cortical motor functions.

Bethlem Royal Hospital.

LLANELLY HOSPITAL.—The report for the past year shows that the institution is in a satisfactory financial position; £360 had been received by the committee from the secretary of the Llanelly Musical Festival, and there was a balance to the credit of the hospital of £323 5*s.* 5*d.*, of which £200 had been placed on deposit.

NOTES ON SULPHONAL.

By HENRY SUTHERLAND, M.D.,
PHYSICIAN TO THE ST. GEORGE'S (HANOVER-SQUARE) DISPENSARY.

AFTER repeated trials of sulphonal in various forms of insanity, I have come to the conclusion that in chronic cases associated with recurrent attacks of excitement sulphonal is a most valuable remedial agent, producing sleep, not only on one occasion, but also on two or three nights following its administration. In this form of insanity it also considerably allays excitement during the day, although it may have been given once only as a soporific at bedtime. My experience of its advantages in other forms of mental disease (and especially in continued chronic mania, as opposed to recurrent chronic mania) is less satisfactory.

I. *In chronic mania with recurrent attacks of excitement the good effects of sulphonal are very conspicuous.*

CASE 1.—Mr. B. R——, aged forty-seven. Usually very quiet. Has attacks of noisy excitement and sleepless nights at irregular intervals. Bromide and chloral in large doses have been given with but slight effect. One dose of thirty grains of sulphonal quiets him at once; not only during the night on which it is taken, but also on the two or three nights following. Strangely, while at the seaside this dose produced little or no effect.

CASE 2.—Mr. L. C——, aged seventy. Recurrent mania, with restless nights. Owing to advanced age bromide and chloral do not seem to be indicated. Takes twenty grains of sulphonal now habitually every alternate night, the result being a long refreshing sleep with two or three quiet nights to follow.

CASE 3.—Mrs. G. M——, aged sixty-seven. Recurrent mania with depression between the attacks. Formerly she was very violent. Bromide, chloral, opium, and all sedatives failed to quiet her until antimony was tried, which had a good effect. Owing to advancing age and the fact that she has a dilated heart, it is thought dangerous to prescribe this remedy any longer. The symptoms, too, are now limited to using bad language and shouting, her attacks upon her attendants being discontinued. Fifteen grains only of sulphonal produced sleep on one night and again on the two nights following, and also a condition of quietude during the day. If not given every three days sleep leaves her and the excitement returns.

II. *In chronic mania with continuous, unbroken excitement the effects of sulphonal are uncertain, and the maniacal symptoms seem to be increased during the day.*

CASE 4.—Mr. C. R——, aged thirty-four. Chronic mania (folie circulaire). Continually in a restless condition. Very dirty. Sleeps badly. Bromide and chloral have failed. One dose of thirty grains of sulphonal quieted him for a short time, but subsequent doses have had little or no effect.

CASE 5.—Miss B. D——, aged twenty-three. Chronic mania. Never talks. Attacks the attendants impulsively. Sleeps very badly. Bromide produces rash. Sulphonal was tried (fifteen to thirty grains). On some nights she sleeps badly after sulphonal, and on other nights she sleeps well without it. With one exception only she was always more excited during the day after taking this sedative.

CASE 6.—Miss G. A——, aged fifty-two. Chronic mania, with never-ceasing restlessness and moaning. Began with twenty grains. Very stupid the day after this small dose. Slept well that one night, but not well subsequently. Dose increased to thirty grains, and on one occasion to fifty grains. She had no sleep after this large dose. Coördination was much affected. She rolled about in walking next day as if intoxicated.

CASE 7.—Miss G. W——, aged thirty-four. Chronic mania, with violence. Once slept nine hours after fifteen grains; on another occasion slept only two hours after twenty grains. Thirty grains of sulphonal sometimes produce sleep, sometimes have no effect. More excited during the day after taking the drug.

III. *Effects of sulphonal in other forms of insanity.*

CASE 8.—Mr. G. T——, aged forty. Organic dementia, with hemiplegia. Very restless at night. Ten grains were given on one occasion with good effect. Being almost moribund, it is not thought advisable to continue the sedative.

IV. *Incipient general paralysis, with very restless nights.*

CASE 9.—This patient derived benefit from thirty grains of sulphonal taken one night; also on the following two nights. Took several doses, and it has never failed.

V. *Sane patient. Bad effects of sulphonal.*

CASE 10.—W. B——, aged twenty-six. Night watch. Being new to the duty was unable to sleep by day. Took thirty grains of sulphonal. Slept eight or nine hours, but woke with a splitting headache. Thirty grains were tried on a second occasion with the same result.

VI. *Sane patient. Good effects of sulphonal.*

CASE 11.—This patient had a severe cold, with high temperature and sleepless nights. Antipyrin was taken during the day. Sulphonal (thirty grains) taken nightly produced excellent effects.

Modes of Administration.

After a repeated series of experiments I find sulphonal (in the proportion of thirty grains to one ounce of the menstruum) to be insoluble in cold water, brandy, sherry, ether, nitric acid, and liquor potassæ. It is soluble in all these menstrua if boiling, but rapidly precipitates on cooling. It remains in solution far longer in brandy than any other liquid, and might be advantageously given by mixing boiling brandy with sulphonal in solution with hot beef-tea, which is, however, a nauseous compound. It is difficult to dissolve in any case, and is more appropriately administered in the solid form, as it is quite tasteless; nor does it burn the mouth as chloral does. It may be conveniently given as follows:—(*a*) In warm beaten-up eggs and milk; but the mixture must be well stirred before taken, or the drug will sink to the bottom. (*b*) In stewed fruit, with plenty of juice and white pounded sugar. (*c*) In milk puddings, either mixed with the pudding or with the sugar given with the pudding. (It has been tried in the gravy of meat, but is usually detected by the patient.) (*d*) In hot soup it is freely soluble, but the mixture must not be allowed to cool, or the drug will be found as a deposit at the bottom of the basin. (*e*) May be given also between two thin slices of bread-and-butter. A few grains of calomel may be added if necessary. Both drugs are tasteless. (*f*) Might be given made up in a confection or in jam. (*g*) With patients who do not refuse medicine the following formula may be used:—Sulphonal, 20 gr.; pulv. tragacanth., 20 gr.; syrup. aurantii, 1 dr.; aquam ad 1 oz. The draught to be well shaken. (This formula is from Mr. E. T. Hall.)

Conclusions.

Sulphonal is a most valuable sedative in chronic insanity with recurrent attacks of excitement. It is, however, somewhat curious that, in recurrent excitement, the drug should prove so efficacious, whilst in continued excitement (a form strongly resembling recurrent excitement) the effects should be not only slightly marked but also apparently injurious, by increasing the state of excitement in the patient on the following day. The lesson to be learnt from a study of the effects of sulphonal is that we ought to endeavour to ascertain in what form of alienation and under what particular conditions this or that individual drug is indicated. It is only by the application of one special remedy to a special symptom, or by a mixture of remedies appropriately chosen to a mixture of symptoms, that we can hope to gain any advance in the empirical treatment of insanity.

SULPHONAL IN THE INSOMNIA OF TYPHUS.

By C. KNOX BOND,
RESIDENT MEDICAL OFFICER, CITY HOSPITAL, SOUTH LIVERPOOL.

A DRUG which will induce sleep in typhus fever (and yet avoid the tendency of some other hypnotics, notably opiates, to cause stupor and allied conditions leading up to coma), and further which can be given with confidence when these conditions are already to some extent present, substituting natural sleep for semi-stupor, would be of extreme value in the treatment of this disease. Sulphonal could scarcely be submitted to a more severe test as regards its harmless, sleep-causing powers than when tried in this direction, and in estimating its worth the following analysis of notes of twenty-three cases in which sleeplessness occurred as a prominent symptom among a total of seventy-

six cases of typhus treated in the City Hospital, South Liverpool, during the past twelve months, may be of service. The insoluble and tasteless powder was given in thirty-grain doses mixed with beef-tea, warm milk, or whisky-and-water at 8 or 8.30 P.M. The largest amount given was ninety grains in three doses divided over a period of six hours. The typhus was of a severe type, diarrhœa being present in a large number of cases, and exerting its influence in this as in all febrile disorders, as perhaps the most pernicious symptom to be dealt with, the frequent ochrey-yellow alkaline "typhoid" stools, now almost rare in our enteric wards, reappearing amongst these typhus cases. In all the cases from which these notes were taken the spotted abundant eruption of typhus was present and unmistakable.

In nearly all cases sleeplessness had been present for a period of twenty-four hours and upwards before the drug was first given, and was associated with active delirium, and an estimate of its effect as a sleep inducer cannot be separated from consideration of its calming effect on delirium; in the few cases in which the drug had no immediate effect in causing sleep it was noted that the delirium was lessened and that the patient became quieter. After the sleep of sulphonal it was usual to find patients previously violently delirious had become quieter and more rational. Only in one case was it noted that the patient had become "more violently delirious and restless" after the drug; on the dose being repeated he still remained restless and delirious for three hours, then became quiet and had sound sleep for five hours, awaking quiet and sensible. This man had been a heavy drinker, consequently the delirium was intractable. The time before sleep was induced was commonly half an hour, the shortest time less than ten minutes, the longest three hours (the above case, and a case of maniacal delirium after abortion), and four hours (one case of pneumonia in which the next night sleep followed in half an hour). The drug failed in two cases to produce sleep; in one it was administered in the afternoon, in a case in which typhus and typhoid were both present, with severe diarrhœa and delirium, opium in considerable doses also failed; in the other the failure was due in great measure to the fact that the patient was under partial restraint, owing to violence of delirium, chloral also failing from the same cause. In five cases the first dose given failed, and had to be repeated, sleep following second dose, given four hours later; in four cases, in one a powerful man very violently delirious, and who had recently drunk hard, sleep did not ensue until after the third dose on two occasions, the three doses being given in one instance within nine hours, and on the following night within six hours. This man was afterwards quiet and tractable, and made a good recovery. The duration of the sleep averaged from three to five hours, the longest being twelve hours, the shortest an hour and a half. The character of the sleep in the majority of cases was sound natural sleep, from which the patients could easily be roused for nourishment, quickly dozing off again. In a few moaning and slight uneasiness were noted; in many the effect lasted during the following day, the patients being drowsy and sleeping at intervals. The patient's own sensations were seldom obtainable, owing to the mental condition. Equally no suggestion was present in their minds as to the anticipated effect of the powder, but the more rational always expressed themselves as feeling better after sleep; none suffered from headache. In a large proportion of cases pulmonary congestion was severe; in a minority pneumonia was present. These cases exhibited no increase of dyspnœa or lividity after taking the drug; in no case was the pulse found to be altered in force, volume, or rhythm. Dryness of either the tongue or skin was not increased. Moistening of the edges of the tongue and sweating were occasionally noted on the day after the powder was given. Any possble effect of the drug as a factor in the causation of the diarrhœa was carefully negatived. The difficulties in the way of obtaining evidence as to any effect on secretion of urine appeared insuperable as separate from those of the disease itself, albuminuria being usually present on admission. Diminution, increase, retention, and incontinence of urine were fairly common symptoms.

In only one case was there any suggestion of possible ill-effect of the drug. It was a man aged twenty-two years, in whom from the first there was evidence of profound heart failure, rapid cardiac dilatation, associated with petechial rash and albuminuria in excess; the whole condition pointing to impending collapse, which actually occurred at the time of the crisis. The temperature fell in a few hours from 104° to normal. Death ensued five days later, on the eighteenth day. Sulphonal had been given twice the previous night; but on careful examination of the facts of the case it would not seem to have contributed towards the fatal result, which was due to collapse at the time of the expected crisis. In this case diarrhœa, by far the most fatal factor in this series of cases, was present almost throughout the illness.

As far as these cases can be fairly said to prove anything, they indicate clearly that sulphonal is of very great value as a means of inducing sleep in typhus, and remarkably free from attendant disadvantages. With the few exceptions above noted, easy natural sleep was with certainty induced within a reasonable time, and the condition was again easily established on subsequent occasions. The patients benefited by the rest, and in no case suffered from the remedy. I have to thank Dr. Wm. Irvine, under whose care these cases were admitted, for permission to publish these notes.

A CASE OF

INTRA-PERITONEAL HÆMATOCELE DUE TO RUPTURE OF A TUBAL PREGNANCY TREATED BY ABDOMINAL SECTION, AND REMOVAL OF THE RUPTURED TUBE.

BY LAWSON TAIT, F.R.C.S., &c.

NOTHING could offer a more striking—indeed I may say a more startling—contrast than the case I am now about to narrate when compared with the case narrated in THE LANCET of Aug. 24th by Mr. T. N. Thomas of Leicester. On the morning of Aug. 20th, at 11 o'clock, Dr. Thomas Nelson, of this city, walked into my consulting-room and told me that he had seen, the night before, a married woman of twenty-six, who had complained of sudden access of pain and discomfort in the lower part of the abdomen. She had rapidly got worse, and when seen by him on the morning in question she was found in a condition of collapse, acute anæmia, and all the symptoms of internal abdominal hæmorrhage, and the one point in the history which gave him a clue to the nature of the case was that she had gone two weeks past her time of expected menstruation. He made the diagnosis of ruptured tubal pregnancy, and from his description of the case I had no hesitation in concurring with him. I advised him to bring the patient in a vehicle to my private hospital as rapidly as he possibly could, whilst meantime I made all necessary preparations for immediate abdominal section. Within an hour everything was ready; the patient was found to be absolutely pulseless. She was anæsthetised. I opened the abdomen and, as one of the spectators afterwards said to me, "the rush of blood was as if I had opened a hydrant." Regardless of the blood and blood clots, I went straight for the fundus of the uterus, and in a moment discovered that the tubal pregnancy existed and had ruptured in the right Fallopian tube. Passing a needle swiftly into its base, I tied the broad ligament, cut off the tube and ovary, and then a little more leisurely proceeded to remove many pounds of clots and blood serum from all parts of the abdomen. I closed the abdominal wound, leaving in a drainage-tube. Not a single drop of blood was lost, and the progress of the case is briefly this. At 5 P.M. on the day of the operation the temperature was 36°, and no pulse could be felt save a slight flickering on deep pressure at the root of the neck. The patient's pupils were widely dilated, and did not respond to the stimulus of light. The only appearance of life was a slight movement of the nasal cartilages and of the diaphragm. Her face was a ghastly waxen yellow. By 11 P.M. the temperature had risen to 38°, but no pulse was perceptible, nor did the slightest flicker make its appearance till thirty-six hours after the operation, and it was fully forty-eight hours before it was possible to count it. The first record gives pulse 140; on the 22nd it came down to 126; on the 23rd it came down to 103; and on the morning of the 24th the temperature was 37°, and pulse 89, the abdomen being perfectly flat. In the evening of the same day she passed a characteristic decidual membrane. She is now beginning to eat,

is perfectly comfortable, and may be regarded as having already entirely recovered from her serious condition.

In Mr. Thomas's case the tubal pregnancy ruptured outside the peritoneum; in this case the rupture took place into the peritoneal cavity. The trouble in both cases was the same—hæmorrhage. In Mr. Thomas's case the hæmorrhage was limited by the hæmostatic influence of the broad ligament. In my case there were none of nature's efforts to arrest the hæmorrhage, and in another hour it would have been hopelessly fatal. The differential diagnosis was made by the presence of a supra-pubic tumour in Mr. Thomas's case, and the absence of such in mine. This is the point upon which I have always laid most stress. The case was seen and the operation performed in the presence of Dr. Thomas Nelson, and my assistant, Mr. Teichelmann, Dr. Ostrom of New York, Dr. Arthur Johnstone of Danville, Kentucky, and Mr. O'Callaghan of the city of Carlow, and it constitutes the forty-fifth of the kind I have operated upon.

Mr. Teichelmann made a careful examination of the preparation, and the rent in the tube is not more than a quarter of an inch in extent, the fœtus is of not more than the fourth week of its existence, and lies in its membranes still *in situ* within the torn tube. There is no blood within the cavity of the tube, and the size of the mass is mainly due to effusion of blood in the muscular coat supporting the layers in all directions.

Birmingham.

REMOVAL OF SPLEEN.

By W. K. HATCH, F.R.C.S.

ALTHOUGH this case was a failure as far as the result was concerned, yet there are some points of interest connected with it which make it worth recording.

Enlarged spleens are common enough in India, but the operation of removal is seldom performed, nor would I press anyone to undergo it, although several successful cases have been recorded. The risks are so great that after a proper explanation of them has been given to the patient he may well be left to decide as to whether he is willing to undergo the operation. This patient came into the hospital urgently requesting to have the spleen removed, and therefore took on himself the bulk of the responsibility. At first he was treated in the medical wards by Surgeon Dimmock, but only a very slight improvement took place in his condition. As to when it is advisable to remove a spleen there are no very definite rules as far as I am aware. If, as in this case, the patient's life were made miserable, and medical treatment had given little or no relief, then I should say it might be considered desirable to operate. No one surgeon has had sufficient experience of these cases to formulate any precise rules as to the choice of cases for operation. I have myself only seen the operation once performed, and that on a man with a very soft spleen. The difficulties of "delivering" such a spleen are very great; certainly a firm, hard spleen is much more easily manipulated, and therefore more favourable for operation. The presence of adhesions cannot easily be diagnosed beforehand; the huge mass always appears unwieldy and more or less fixed above, though the margins may be easily elevated and depressed. In the present instance adhesions to the diaphragm were the direct cause of failure, nor do I see how their presence could have been detected. Apart from the danger of hæmorrhage by rupture of the spleen itself, or some of its vessels, the operation cannot be said to have any special dangers greater than those of ovariotomy, for instance; but this danger is so great that it almost negatives the desirability of performing it. Even from the abdominal incision the bleeding is very free, owing to the poor condition of the blood.

The patient, an extremely emaciated Hindoo of about thirty years of age, with the characteristic sallow appearance and flabby condition seen in cases of enlarged spleen, said that about eight months ago he had had fever (quotidian), not preceded by chills, but followed by profuse perspiration. This continued for a month, and then left him; a small swelling then appeared at the left costal margin, which gradually increased, but without pain; the weight caused him considerable inconvenience. Previously to this he had never suffered much from fever, but, being a professional beggar, was a good deal exposed at night, and lived in an unhealthy locality; at one time he had been intemperate in his habits. Had suffered from dysentery and puffiness of the feet and legs from time to time. He was extremely anæmic and emaciated, the abdomen looking very large in comparison with the wasted limbs and thorax, the legs œdematous. There was slight bronchitis, also diarrhœa, with blood and slime in the stools. The conjunctivæ were tinged yellow, and night blindness was complained of. The abdomen was much enlarged, and contained a small amount of fluid; a tumour (the spleen) extended from the left costal margin, and an inch below the umbilicus, and as far as the median line; it was somewhat movable, with a hard and smooth surface; the notch could be felt about an inch above the umbilicus. The tumour was painful, particularly during movement, and the patient himself said that he would rather die than remain burdened with his disease. The liver dulness was normal; the urine contained a slight amount of albumen, but no casts. Heart action weak, but normal. As before stated, the man was first treated in the medical wards, and there was some relief of the abdominal dropsy; the tumour continued painful. Quinine, arsenic, and iodide of potassium were given internally, and mercurial ointment was rubbed over the spleen. After two months of this treatment a very small diminution was recorded; but the man was not satisfied, and begged for removal of the tumour. The dangers of the operation were fully explained, and the patient remained firm in his determination to undergo it, merely stipulating that if he died his body was to be removed by Hindoos. I accordingly undertook to operate, and performed the operation on Aug. 14th, 1888, Surgeon-Major Banks and Surgeon Dimmock being present. A free abdominal incision was made, and the very free oozing stopped before opening the abdominal cavity. When this was done the interior was well illuminated by the electric light and the spleen examined. The hand was then carefully passed round in order to ligature the splenic vessels. While doing this adhesions were felt between the diaphragm and the spleen during their separation, which was most cautiously done. Hæmorrhage to an alarming extent suddenly occurred, the ligature was applied as rapidly as possible, but not before a considerable quantity of blood had been lost. The separation and delivery of the spleen were thus completed without difficulty. The peritoneal cavity having been cleansed and the pedicle inspected, the wound was closed and dressed with dry dressings. A saline injection was introduced into the right basilic vein, as the patient was in rather a critical condition. For a time he rallied, but became again collapsed, and died the same evening. Examination of the spleen showed that it was a suitable one for removal. It was extremely hard, and much pigmented; there were some rents in the capsule where adherent to the diaphragm. Post-mortem examination showed that the pedicle was safely secured; but there had been considerable oozing from the diaphragm, and ten ounces of blood were present in the abdominal cavity. It is not such an easy matter, as would appear from Sir Spencer Wells's case, to successfully pass the ligature without causing injury to the vessel or the organ itself, and very great care is required in this procedure. Should such injury occur, the bleeding is not easily controlled.

Bombay.

CASE OF SUICIDE AT GREENWICH.—A very determined and carefully planned suicide has recently occurred in Greenwich, where the deceased, who left voluminous descriptions of what he was about to do, with directions to assist the coroner to identify the articles left behind, seems to have swallowed 128 pills or pellets of crude opium, such as are used for smoking in the East, and weighing about a grain each. In addition to the 128 pills swallowed, 242 more were found, as to which the deceased considerately left a request that the remainder should be destroyed, for fear they should fall into the hands of some person unacquainted with the effects of "the mighty drug." Amongst other articles found was a tin box, which was labelled with a note saying that it contained "fresh butter and honey, to assist the palate in swallowing this great amount." The cause of the deed was ruin produced by "the cursed horse-racing," as to which the poor man goes on to remark that he had made a fair little fortune at it for years, but that this was easily spent, until at last he had lost all.

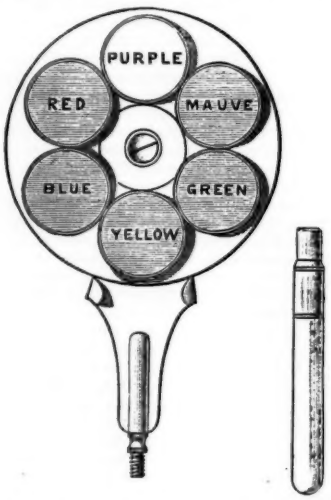
Clinical Notes:

MEDICAL, SURGICAL, OBSTETRICAL, AND THERAPEUTICAL.

COLOUR TEST FOR RAILWAY PURPOSES.

By H. A. LEDIARD, M.D., F.R.C.S. ENG,
SURGEON TO THE CUMBERLAND INFIRMARY AND TO THE LONDON AND NORTH-WESTERN RAILWAY AND OTHER RAILWAYS IN THE CARLISLE DISTRICT.

THE drawing which is here given represents a simple instrument, devised for the use of surgeons who are required to test the colour vision in men and lads taken for employment on the railway. The colours given are blue, yellow (i.e., the railway signal white light), green, mauve, and red. The test is used by holding the instrument against a light, and turning the disc round so that the person examined sees the colours in much the same way as he would were he looking at signals. The instrument has been made for me by Messrs. Curry and Paxton, and can no doubt be improved on; the addition of a piece of smoked glass, for instance, would make the colours much the same as they would be in a fog. I find all that is really needed is to test with the colours used on the railway, hence I limit the use of the instrument I have invented to that purpose. I believe that the colours being arranged so as to be rapidly changed will facilitate the work of the surgeon, and be a no less sure test of the colour-vision needed for railway purposes.



Carlisle.

A CASE OF ENURESIS OF LONG DURATION RAPIDLY CURED WITH BELLADONNA.

By GEO. HERBERT SALTER, L.R.C.P., M.R.C.S. ENG.

IN January last, whilst practising in Victoria, I was consulted by Mrs. B —— in reference to her son aged seventeen years. She told me he had always "wetted his bed" since infancy. She had consulted a doctor some years before, who told her the lad would grow out of it. On examination, I found the patient a bright, intelligent, healthy-looking boy. No sign of disease was discoverable. Bladder, prepuce, urethra, and urine were all they should be, and there was no evidence of worms. He told me that he passed his urine just before awaking from his first sleep, and that it had occurred, with very few exceptions, each night for as long as he could remember. That volition had been exercised fully in endeavouring to overcome the habit was proved by his informing me that he was so ashamed of himself that when visiting away from home he preferred and used to sit up the greater part of the night to avoid the usual disaster. I told him he might look forward to a speedy relief from his trouble, and gave him a mixture composed of twenty minims of the tincture of belladonna and ten grains of bromide of potassium in each dose, to be taken three times daily. In addition I advised him not to sleep on his back, to hold his urine rather longer than usual through the day, to drink neither tea, coffee, nor alcohol, but to content himself with milk or water, and be sure to drink nothing after 6 P.M. (he usually went to bed at ten o'clock).

I saw him three days after the first interview, and was more than pleased to learn that the second night after commencing the medicine he was free from incontinence. He took one drachm of the tincture of belladonna daily for a fortnight, and during another fortnight the doses were gradually diminished; at the end of that time he discontinued the mixture. I met him in the early part of April, just before I left the colony, and there had been no recurrence of the disorder. Fully six weeks having elapsed since he left off the belladonna, one could certainly consider him cured.

The case is, I think, an unusual one, considering the age of the patient, the duration of the disorder, and the rapid manner in which it yielded to treatment.

Edinburgh.

INTRA-URETHRAL CHANCRE, CAUSING RETENTION OF URINE.

By ROBERT J. CARTER, M.B. LOND., M.R.C.S.,
HOUSE SURGEON, MALE LOCK HOSPITAL.

I AM indebted to Mr. Milner, under whose care this patient came, for permission to publish the following notes.

C. G——, aged twenty-seven, presented himself at the out-patient department complaining of inability to pass urine. He had noticed difficulty in commencing micturition for the last week, and for eighteen hours previously to his attendance at the hospital, retention had been complete. On examination the bladder could be seen and felt as a distinct tumour, extending upwards nearly to the umbilicus. A small papular rash covered the thorax and abdomen. The lips of the meatus urinarius were everted and congested. Situated within the fossa navicularis could be felt an indurated mass, involving the whole circumference of the urethra. The dorsal lymphatic of the penis was thickened and indurated, and the inguinal glands on both sides enlarged and hard. There was no affection of the throat or other glands. A No. 3 silver catheter was passed without difficulty into the bladder, and the urine drawn off. The patient was directed to pass by means of a probe, a strip of lint covered with mercurial ointment, through the indurated urethra every time after micturition, and mercury was prescribed by the mouth. The subsequent history of the case is without any special interest, no more difficulty with micturition being experienced. Absolute retention of urine from this cause is, I think, sufficiently rare to justify the publication of the case.

LUXATION OF SACRO-ILIAC ARTICULATION.

By G. C. EDWARDES-KER, L.R.C.P. LOND.

A. F——, aged thirty-seven, married lady, multipara, hard constitution, and well developed, consulted me with regard to an excruciating pain catching her suddenly, and leaving her as quickly, in the sacro-iliac region. She stated it came upon her suddenly when she arose from the sitting posture, and was of such an intense sickening nature that, to use her own expression, "it took all her strength away." As a matter of course, owing to the season, I attributed it to some rheumatic disturbance, and prescribed the ordinary rheumatic lumbago-gouty remedies accordingly, and also ordered a belladonna plaster, which also, as a matter of course, did no good whatever. At my first visit, being somewhat puzzled by the peculiar description she gave of her ailments, I suggested an examination in the semi-nude state, and upon carefully going over the region complained of, I felt somewhat relieved of my own stupidity and denseness when I discovered a decided "fore

and aft" movement in the sacro-iliac articulation accompanied each time by the sickening pain complained of. She being seven months advanced in pregnancy, I came to the conclusion that the mischief was being considerably aggravated by the weight and pressure of the child, even if it were not altogether caused by her pregnant condition, so I adjusted a stout jean bandage around the hips and sacrum, reaching low down over the mons veneris so as not to cause inconvenience to her abdominal economy, which latter part I have had supported by a laced abdominal belt, and am exceedingly gratified with the result, for, with the addition of a flat pad directly over the damaged articulation, I find there is little or no displacement taking place. Consequently the cartilage does not get jammed as hitherto, and I hope, in spite of her pregnancy, the sacro-iliac ligaments will regain their normal tenseness and prevent a recurrence of the distressing symptoms, which have modified considerably, so that she can attend to her household duties; but of course I have forbidden her to lift so much as a feather.

Woodbridge.

A Mirror OF HOSPITAL PRACTICE, BRITISH AND FOREIGN.

Nulla autem est alia pro certo noscendi via, nisi quamplurimas et morborum et dissectionum historias, tum aliorum tum proprias collectas habere, et inter se comparare.—MORGAGNI *De Sed. et Caus. Morb.*, lib. iv. Procemium.

EVELINA HOSPITAL FOR CHILDREN.

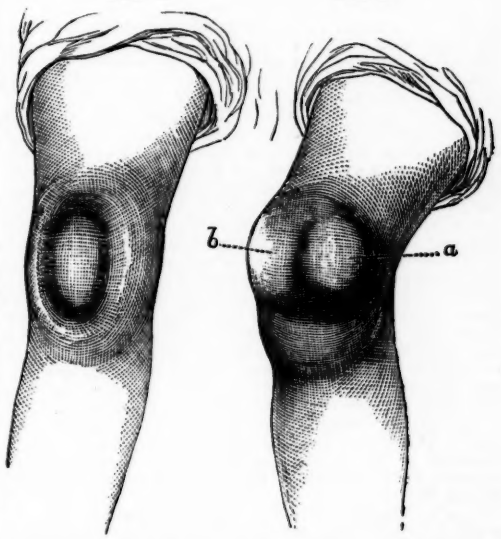
CASES FROM THE SURGICAL OUT-PATIENTS, WITH REMARKS—(*Continued*).

(Under the care of Mr. FREDERIC S. EVE, Surgeon to out-patients, and Mr. LEONARD A. BIDWELL, Registrar.)

THE following case of displacement of the patella illustrates a form of dislocation of considerable rarity, and one which is of much interest. In a large number of instances, the histories of which are on record, the displacement has been outwards, and not observed until some years after birth. That it is occasionally of congenital origin is proved by cases published by Holthouse,[1] Carswell,[2] South,[2] and other surgeons, in some of which the dislocation occurred on both sides. The term "spontaneous," suggested by Mr. Eve, or the word "recurrent," appears to describe the condition to which he draws attention, a form of outward dislocation of the patella occurring in children who, on examination of the part, do not necessarily present evident malformation or disease, and which is liable to recur without any (apparently) adequate cause. Various reasons have been suggested why outward dislocation of the patella should happen without severe injury; we cannot, however, do more than mention them: sudden muscular contraction in patients the subjects of knock-knee;[3] weakness,[4] or shortening of the quadriceps extensor following infantile paralysis; some mechanical cause acting during intra-uterine life; some congenital weakness of the part;[5] absence or want of development of the external condyle of the femur.[6] Professor Steubel,[7] from experiments on the dead body, came to the conclusion that it could only occur in joints the ligaments of which had been previously relaxed. Hamilton[2] says, "In some persons there appears to exist a preternatural laxity of the ligamentum patellæ or of the quadriceps extensor which exposes the subject to this accident from a very slight cause. This recurrent displacement is not necessarily accompanied with any inconvenience to the patient, and does not appear to be followed by inflammation or swelling of the joint, though sometimes the patient has pain and may fall suddenly whilst walking or running in the street. The use of massage or the application of an apparatus generally suffices to keep the patella in position, but operative measures have occasionally been tried. Wright (in his case a girl aged seven years and a half) operated through a lateral incision, pushed the patella inwards, passed two cat-gut sutures through the inner edge of the bone, and tied them firmly down to the tissues on the inner side of the joint. When last seen by him many months later the patella kept its place, and the knee did not trouble her. Mr. Davies-Colley has suggested osteotomy, and the production of a condition of bow leg. Fowler,[2] in a case under his care, divided the patellar tendon subcutaneously without benefit, and eighteen days later removed the patella itself—a somewhat severe procedure.

CASE 3. "*Spontaneous" dislocation of patella.*—Elizabeth D——, a well-nourished child six years of age, was brought as an out-patient at the beginning of the year. One year ago the mother had noticed that "the bone of the knee came out," but before this nothing abnormal had been observed. The child had a fall three years ago, after which she ran about, but did not complain of any pain. When the legs are extended, both knees appear normal, but there is some atrophy of the muscles of the left thigh. The left patella is unduly movable and can be pushed both outwards and inwards to a considerable extent, the latter

FIG. 1. FIG. 2.



movement being the most free. When the joint is flexed to a right angle, the patella slides into a position below and to the outer side of the external condyle of the femur. Fig. 1 represents the limb extended, the patella occupying its natural position; Fig. 2 the limb flexed, *a* indicating the patella displaced outwards, *b* the internal condyle. The condyles are nearly of natural form, but the outer appears somewhat rounded. The capsule of the joint seems to be lax, but the ligamentum patellæ is normal. The vasti are atrophied. The child walks naturally and has no pain. There was no evidence of rickets, the hip-joints were natural, and there was no difference in length between the two legs. No genu valgum. The patella can be kept in position by the thumb when the knee is flexed. The dislocation appeared to be due to the lax condition of the ligaments on the inner side of the joint rather than to any alteration in the articular surfaces of the bones.

Remarks.—The occurrence of displacement outwards is naturally favoured by the normal obliquity of the femora to the inner side of the axis of the limb. Three forms of this dislocation have been described by M. Berselhagen.[8] The first form, called "incomplete," is noticed only when the leg is extended and abducted; but on flexion of the knee the patella glides into its place. In the second variety, called "intermittent," of which the above case

[1] THE LANCET, vol. ii., 1872.
[2] Hamilton, Fractures and Dislocations, p. 893.
[3] Erichsen, vol i., p. 710.
[4] Pitts, Proceedings of Medical Society, vol. xii. See also Malgaigne.
[5] Wright and Ashby, Diseases of Children, p. 648, and others.
[6] Stokes, Proceedings Dublin Path. Soc., vol. ii., p. 247.
[7] Holmes' Surgery, p. 404.
[8] La Semaine Médicale, 1885, p. 33

is a very good example, the knee appears normal on extension, and the displacement only occurs on flexion. The third variety is called "permanent," and in such cases the patella lies always over the outer side of the knee-joint, whether the knee be flexed or extended, and even under chloroform no replacement of the patella can be effected. In this form, too, complete extension is impossible. In the intermittent variety the patient can walk quite well on flat ground, and only experiences inconvenience when moving on an inclined plane. Mr. Golding Bird, in a communication to the Clinical Society,[9] considered that the deformity was caused by shortening of the quadriceps extensor following paralysis (probably infantile) of that muscle, and had, therefore, performed tenotomy of the ligamentum patellæ, but without any benefit. He suggests that the name of the dislocation should be altered from congenital to paralytic. Some objections might be raised to this view, as there was no history of paralysis in his case, and the electrical reaction of the muscles in his as well as in our case was normal. The atrophy of the limb appears more probably due to impaired function. The true cause of this curious displacement can only be discovered by careful dissection, and the opportunity for this has yet to come. In our case the parents objected to any operation, so that an attempt to remedy the malposition by shortening the capsule on the inner side could not be considered. A pelvic band with leg irons, allowing only limited movement at the knee, was given to the child, and a horseshoe pad was attached to the outer iron in such a manner as to press on the outer side of the patella, and so retain it in position. It was found impossible with any apparatus to maintain the patella in position when the knee was strongly flexed.

CASE 4. *Sub-hyoid dermoid cyst.*—Rose M. R——, a healthy looking girl, twelve years of age, was brought to the out-patient department in November, 1888, on account of a fluctuating swelling in the anterior part of the neck, in the middle line. This had been noticed five or six years, and had been increasing in size, having now attained the size of a cob nut. The tumour was not adherent to the skin, and projected between the hyoid and thyroid cartilages in the middle line. On opening the cyst, it was found to pass backwards and behind the hyoid bone. The contents consisted of oily matter and crystals of fatty acids. The lining membrane was smooth, and resembled mucous membrane, but no microscopic examination was made. It was probably lined with columnar and perhaps ciliated epithelium. As much as possible was removed, but complete removal was impossible, owing to the narrowness of the chink between the hyoid and thyroid cartilages. The wound healed within a fortnight, and no recurrence took place. This cyst probably originated by cutting off a small fragment of the mucous membrane of the respiratory passages, in the closure of the bronchial arches along the median line.

CASE 5. *Vascular tumour of meatus urinarius.*—E. J——, a delicate girl, aged six, was first seen on March 30th. She was brought on account of pain in passing urine, and some discharge from the vulva. There was a vascular tumour completely surrounding the urinary meatus and projecting from it about a quarter of an inch; its circumference was about the size of that of a hazel nut. It was very painful when examined. Electrolysis was tried without affecting the size of the tumour. A week later it was removed completely with scissors, the hæmorrhage not being excessive. When seen last (about one month later) the child was quite free from any recurrence or stricture. Notices of similar cases at such an early age are very rare.

CUMBERLAND INFIRMARY.

LYMPHO-SARCOMA OF TONSIL; LARYNGOTOMY AND ENUCLEATION; RECURRENCE IN CERVICAL GLANDS; EXCISION; RECOVERY.

(Under the care of Dr. HENRY A. LEDIARD.)

IT is now more than two years since the patient whose case is here recorded by Dr. Lediard first came under his observation, and the account given below shows a successful method of removal of malignant disease of the tonsil at the age of sixty-two years. At the time of operation the growth had been in existence between two and three months, but the glandular enlargement was not marked; it was not until seven months later that the glands were removed, and the operation required for that purpose, though extensive, has fully justified its performance. Lympho-sarcoma of the tonsil is a rare disease, and shows great malignancy, tending to recur soon after removal, and infiltrates the neighbouring glands at an early stage. There are few cases on record where the disease has not recurred locally or in the glands within a few months after removal. Mr. A. E. Barker's case resembles this in some respects; the patient, a man aged seventy, had a growth in his throat of three months' duration. This, a lympho-sarcoma, was removed through the mouth, and enlarged glands excised from the neck. He was alive a year afterwards. Butlin[1] recommends removal through the open mouth, "as removal of the disease through the mouth in suitable cases has not hitherto proved very dangerous. No case of cure can be claimed for operation through the open mouth, but several cases of relief of longer or shorter duration." He strongly recommends it, giving the mortality as 7·69 per cent., as against 20 per cent. in cases treated by removal of growths by incision from without, whether by the method of Cheevers, that of Czerny, or that of Mickulicz.

The patient's age was sixty-two, and he complained of difficulty in swallowing, the sensation being like "a lodgment in the throat." There was no appearance of ill health, neither had he lost flesh. The voice was thick, and, as far as he knew, the dysphagia was not more than of a month's duration. The right tonsil was uniformly enlarged by a growth which passed in front of and nearly concealed the uvula. To the touch the growth was soft and painless; it was of the same colour as the other tonsil and palate, and had a wide attachment in the usual site of an enlarged tonsil. It was as free behind as it was in front, and did not extend below beyond the usual limits of a much enlarged tonsil. Posteriorly, the surface was uneven; in front, it was smooth. On Sept. 28th, 1887, the patient was also seen by Mr. H. W. Page of London. He also went to Edinburgh at Dr. Lediard's request, to consult Dr. John Duncan, who agreed upon the advisability of operation. On Oct. 26th the patient was admitted into the Cumberland Infirmary. Dr. Sprague, who was house-surgeon at that time, wrote in the hospital case-book: "On Oct. 27th an operation was performed in the usual way, and a vulcanite tracheotomy tube introduced. The pharynx was then stuffed with a couple of sponges, and chloroform continued to be administered through the tube. The tumour was then snipped round the edge with scissors and removed with the finger, easily shelling out. There was very little hæmorrhage. The sponges were removed from the pharynx, and the tube from the larynx, the opening into the latter being covered with dry dressing. The patient was made to breathe warm, moist air, and to rinse the mouth out with Condy's fluid. He made an uninterrupted recovery, not having had any bad symptoms except a slight hoarseness, which rapidly disappeared. The patient left the infirmary on Nov. 7th, 1887." The tumour was soft, and somewhat friable; it was about the size of a large walnut, and, microscopically, consisted of a delicate network, enclosing lymphoid cells in great number. The specimen was exhibited at a meeting of the Carlisle Medical Society on Feb. 9th, 1888. At the time of operation a gland was felt on the right side of the neck, near the angle of the jaw; it was not large, and it was expected that it would subside after removal of the tonsil. This hope was, however, futile, for on May 5th, 1888, about seven months after operation, the patient came to show himself with a large swelling in the right side of the neck, behind, beneath, and in front of the sterno-mastoid. His appearance was bad, he was now pale and thin. There was no regrowth in the throat, and the same gland originally felt near the angle of the jaw was present, mobile but larger. The amount of disease was so extensive that he again consulted Dr. John Duncan, who wrote his opinion in full. Dr. Duncan anticipated a possible cutting of the internal jugular vein, but upon the whole he thought the operation of removal of the glands feasible, but not one to be urged upon the patient. There did not appear to be much pain in the neck, but its lumpiness was very unsightly. On June 20th, 1888, the patient was readmitted into the Cumberland Infirmary. The operation now to be performed was formidable, and Dr. Lediard was assisted

[9] THE LANCET, vol. ii. 1884, p. 778.

[1] Operative Surgery of Malignant Disease.

by Dr. Lockie during the period of nearly two hours that was taken up by it. An incision along the posterior border of the sterno-mastoid of great length was made; the sterno-mastoid was then cut across and turned up and down, exposing a very large gland the size of a pear, which was easily removed. Numerous other glands, both large and small, were then met with somewhat unexpectedly and removed; they all shelled out with remarkable ease, but all the important structures of the neck were exposed in the process. Enlarged and diseased glands passed behind the anterior border of the trapezius muscle and were removed. Enlarged and diseased glands passed down behind the collar bone, and were also removed. Diseased glands lay amongst the cords of the brachial plexus, and required shelling out. Altogether, some twenty to thirty glands of various sizes were taken away. All of them were readily shelled out when the investing connective tissue was teased away. The sterno-mastoid was then stitched together, and the wound sewn up. There was not upon the whole much bleeding, as the knife was not used after the first steps of the operation. The wound healed by first intention, recovery was rapid and uninterrupted, as the patient went home on July 4th, 1888. Microscopic examination showed the same structure in the glands as that of primary growth. The patient regained health and strength, and is at the present time, August, 1889, in good health and active habits.

Medical Societies.

PATHOLOGICAL SOCIETY OF LONDON.

Gastric Ulcer communicating with Colon.—Tumour of Muscle.—Symmetrical Aneurysms.—Albinism in a Monkey.—New Growths at Root of Lung.—Sarcoma of Penis.

AN ordinary meeting of the Pathological Society of London was held on Nov. 19th, the President, Dr. W. H. Dickinson, being in the chair.

Dr. SAMUEL WEST showed a specimen of Gastric Ulcer communicating with the Colon, which was removed from a man aged forty, who had been admitted into St. Bartholomew's Hospital for intestinal obstruction. He had been well till three weeks before, and then was attacked with severe epigastric pain after straining and shortly after a meal. Vomiting took place, which relieved the pain, but bore no relation to the ingestion of food. A week after the beginning of the illness it became foul smelling, and afterwards the patient brought up fæcal contents, and passed motions of similar character. This confirmed a diagnosis of gastro-colic fistula. An exploratory incision was made, but nothing found, and the patient died of exhaustion forty-eight hours afterwards. At the necropsy a large ulcer was found in the stomach, extending nearly round its transverse axis and being two inches in width. In the centre of the greater curvature was a small hole, the site of perforation into the colon. In the latter a growth of similar character was found. There was a small cauliflower-like growth close to the pylorus, but separated from the ulcer by a band of healthy mucous membrane. There were no secondary deposits. He dwelt upon the absence of previous symptoms of gastric lesion, and said he had before seen gastric ulcers of great chronicity which during life had given rise to no signs. He pointed out likewise that the ulcer was of medullary cancerous nature, and asked for guidance as to diagnoses in cases of this kind.—Dr. N. MOORE thought perforation into the colon an uncommon occurrence. He had seen a case of cancer of the cæcum which perforated into the duodenum, and a cancer at the cardiac end of the stomach perforate into the small intestine and transverse colon. He was of opinion that it was not rare to find cases such as that described presenting no symptoms, and he recalled an instance in which a diagnosis of pernicious anæmia was made, and transfusion performed, but at the necropsy unsuspected carcinoma of the stomach was discovered.—Mr. ROGER WILLIAMS said that in some cases of cancer of the stomach no symptoms other than those of tumour were present. The pyloric orifice was usually considerably larger than normal in such cases, and he had witnessed the same thing at the ileo-cæcal valve.—Mr. J. H. MORGAN gave the details of a case possessing unusual interest. A man of fifty-eight, six days after being hustled in a crowd, had pain in the left illiac region followed by collapse, with feeble pulse and flaccid abdomen. He was free from pain. Next day the abdomen was full, tender, and tense. To complicate the diagnosis the patient was anæmic, the left femoral pulse was weaker than the right, and there were no gastric symptoms; ruptured aneurysm was suggested. Laparotomy was performed, and turbid but sweet fluid found in the peritoneum. It was washed out with iodine water, and a drainage-tube left in, but the patient died in the night. Next day a small perforation of the stomach was found in the centre of a large ulcer. An adhesion between stomach and transverse colon had prevented extravasation, but peritonitis was started by the breaking down of these adhesions. There was another ulcer near the greater curvature of the stomach, and he believed they were of malignant nature.—Dr. NORMAN DALTON said that the cases related occurred in the intestine, and the lateness of the development of the symptoms might be explained by the fact that the mucous membrane remained intact over the growth till a comparatively late period, and then, when it broke down and ulcerated, pain occurred.—Dr. DICKINSON had seen cases of gastric ulcer without symptoms, and thought it was because the orifices were not involved. He asked whether there was vomiting of solid fæces, indicating a connexion of the stomach with the colon. It was said that lumps of fæces had been vomited by patients suffering from obstruction of the large gut. He related an instance which had come under his notice at the Children's Hospital in which a child in apparently good health was said to vomit fæces, and the child had likewise passed motions by the nose and ears. Under close observation these assertions could not be confirmed.—Dr. WEST, in reply, said that at no time did his patient pass solid fæces by the mouth.

Mr. MARMADUKE SHEILD showed a specimen of Primary Tumour of the Gracilis Femoris Muscle. It was excised by a long incision from the right thigh of a lad aged fifteen, who also suffered from webbed toes. The operation was performed on Aug. 22nd, 1889, and the boy was discharged, walking well, on Oct. 4th. The glands and general health were unaffected, but there was a localised thickening in the right rectus femoris muscle, thought to be of the same nature. This, however, underwent no increase in size during the patient's stay in hospital. Reference was made to the various kinds of tumours and other formations found in muscles, and the rarity of true tumours was insisted upon. These cases had been so fully and ably treated by Campbell de Morgan and Teevan, that a dissertation on the subject would be mere repitition.—Mr. ROGER WILLIAMS asked if striated muscle fibre were found in the sections. It had been known to occur in teratomata, but he believed it to be the only tissue which did not occur in neoplasms.—Mr. BLAND SUTTON asked whether syphilis had been excluded.—Mr. SHEILD, in reply, said that the tumour infiltrated and displaced the muscle fibres, many of which appeared in transverse section. There was no appearance of syphilis and antisyphilitic treatment was tried without effect before excision was resorted to.—On a motion by the PRESIDENT the specimen was referred to the Morbid Growths Committee.

Dr. HALE WHITE then showed a specimen of Symmetrical Intracranial Aneurysms of the Vertebral Arteries, producing symptoms resembling cerebro-spinal meningitis. The patient was admitted for pain in the head, pain in the muscles at the upper part of the neck, retraction of the head, sickness, optic neuritis, paralysis of the left side of the face, paralysis of both hypoglossal nerves, hæmaturia, a mitral murmur, and a slight rise of temperature. The patient died in a fortnight. The diagnosis made during life was that he had cerebro-spinal meningitis, and that possibly this was due to ulcerative endocarditis. At the necropsy it was found that he had got ulcerative endocarditis, and that there was on each vertebral artery about half an inch from their junction an aneurysm the size of a large pea; these aneurysms were the result of emboli. Each aneurysm pressed upon its corresponding hypoglossal nerve, and thus explained the lingual paralysis. The facial nerves were not obviously pressed upon, but the aneurysms were so near them that it is quite possible that during life when distended they caused some pressure. The precise explanation of the retraction of the head was not evident. The

base of the brain was covered with blood-clot due to the fatal rupture of the right aneurysm. The retinal hæmorrhages and hæmaturia were embolic.—Dr. WASHBOURNE said that he had examined the mitral valve, kidneys, and spleen of Dr. White's case microscopically, and that by staining the sections by Gram's method he had been able to demonstrate chains of streptococci in all these organs, and that the sections were to be seen under the microscopes.—Dr. HADDEN asked if these aneurysms were not due to embolism. It was also interesting clinically that the patient had optic neuritis; this was rarely seen in such cases, because they died suddenly. Some years ago he dissected a specimen of symmetrical aneurysm on the middle cerebral arteries, at their first bifurcation.—Dr. WEST brought forward a precisely similar specimen to that described by Dr. Hadden, and no cause could be found for its development. The patient died suddenly three days after admission; she had been a hard drinker, and had a cirrhotic liver.—Mr. GODLEE asked if there was any spasm of the facial muscles. In a case of convulsive tic of the facial nerve an aneurysm in about the same situation was found.—Dr. CROOKSHANK said the specimens showed streptococci in the form of pure cultivation, and he regarded them as purely epiphytic. Similar, if not identical, organisms had recently been the subject of a somewhat acute controversy; they, or ones like like them, had been found in scarlet fever, especially where there were septic complications, and he referred to a paper in the *International Journal of Medical Sciences*, in which a distribution of the organisms in a manner corresponding to the present case had been found.—Dr. DICKINSON remarked on the rarity of finding aneurysms on the vertebral arteries.—Dr. HALE WHITE, in reply, looked upon the aneurysms as due to embolism. He thought the ulcerative endocarditis was severe enough to cause the slight optic neuritis observed to be present. He was not able to determine whether facial spasm was present before the paralysis developed.—Dr. WASHBOURNE also replied. He said it was impossible to distinguish between these micro-organisms by their morphological appearances, and he had made no cultivations of them.

Mr. BLAND SUTTON showed a drawing which was made from an Albino Macaque Monkey, Macacus simicus. The monkey was interesting in that it suffered from horizontal nystagmus. From an attentive examination of the monkey he came to the conclusion that it was imbecile. It would hang from the wires of the cage by means of its hands and feet many consecutive hours, sometimes uttering a low plaintive cry, taking no notice of the persons round about, but always ready to greedily snatch a soft nut from the hand of a keeper. The mouth was always slightly open, allowing the teeth to be seen, and a peculiar stiffness replaced the remarkable pliability so characteristic of a monkey. These things gave it the peculiar idiotic expression which the artist had succeeded in displaying in the sketch.

Dr. NORMAN MOORE showed some specimens illustrative of new growths. The first was one of Carcinoma of the Root of the Lung. The new growth extended round and into the large bronchi, and a very short distance into the lung. Microscopically it was a carcinoma, with spheroidal and subcolumnar cells and an abundant stroma. The secondary growths were three masses of pea size in the left lobe of the liver and one similar mass in the left kidney. The patient was a man aged fifty-one years, and was under his care in St. Bartholomew's Hospital. He was admitted with an empyema of the left side in August, and had had pain in that side since April. On Aug. 15th two and a half pints of pus were drawn off. The pleura soon filled again, and on Aug. 21st a piece of rib was resected, two pints of pus let out, and two drainage tubes introduced. Pus continued to come out until his death on Oct. 1st. The ultimate cause of death was acute pericarditis. Blood-stained pleural effusion was common in new growths of the root of the lung, but this was the only example in which he had seen a purulent effusion associated with primary carcinoma of the lung. The paucity of secondary deposits was exceptional; they were generally widely distributed. More than half the cases he had seen showed growth into some contiguous structure, and this was absent in this example. The duration of the growth seemed to have been about seven months. The second case was one of Carcinoma of Œsophagus. The lowest inch and a half of the œsophagus was infiltrated with a dense carcinomatous growth, ulcerated on the surface, and shown in microscopic sections to be a carcinoma with columnar and spheroidal cells in a dense stroma. It probably originated in the glands of the mucous surface. The patient was a woman aged fifty-eight years, under Dr. Gee's care in St. Bartholomew's Hospital. The rarity of carcinoma of the œsophagus in woman and the long duration of sixteen months made the case remarkable. The third case was a Sarcoma of Peritoneum, covering most of the abdominal organs, dense, white, and smooth on its surface. It did not enter the substance of any of the viscera. Microscopically, it was a sarcoma containing many spindle cells. The peritoneum over the liver but not the capsule was involved in the growth. It was primary in the right testis, which was removed in December, 1888, and showed a growth of identical microscopic characters. The patient was a boy, aged six years, under the care of Sir Dyce Duckworth in St. Bartholomew's Hospital, and after the operation no symptoms were observed till July, when his abdomen began to swell. He was tapped more than once, but there was little ascites. The growth could be felt as a dense mass extending into the right inguinal region.—Mr. R. WILLIAMS thought the specimen under the microscope was one of tubular carcinoma. Cases of œsophageal cancer commencing in the glands usually had a longer duration than those springing from the free surface. These growths were four times commoner in men than in women.—Mr. R. W. PARKER asked if Dr. Moore could account for the empyema. Did one of the nodules of cancer suppurate or open into the pleural cavity.—Mr. BOWLBY thought the infection of the peritoneum in the third case resulted from continuity of growth, which had spread from the testis up the inguinal canal. He had seen the same thing happen in the pericardium.—Mr. TARGETT asked if in the second case the growth did not originate in the stomach.—Dr. WEST gave it as his experience that the effusion was usually serous or hæmorrhagic, not purulent. He inquired if the tumour started from the bronchus itself.—Mr. GODLEE had seen only one case of purulent effusion, which was serous to begin with; the empyema did not close, and the patient died of a secondary tumour in the brain.—Dr. MOORE, in reply, thought the growth originated in, rather than round, the bronchi. He believed the pleurisy was gradually set up by irritation, and that it became purulent later. He agreed that the œsophageal growth commenced in the glands, and not on the surface, and in the third case the origin was œsophageal, and not gastric.

Mr. HURRY FENWICK showed a mixed Spindle and Round-celled Sarcomatous Growth which Mr. Waren Tay had removed eighteen months ago from the left crus penis of a man aged thirty-six. The tumour had been growing for three years and a half; there was no history of accident, no evidence of stricture, and no invasion of or even pressure upon the urethral canal; slight pain was experienced of a shooting character. The tumour before removal was distinctly elastic towards its anterior part, firmer more posteriorly, where it evidently possessed deep and strong attachments to the left crus; it was completely removed and a small portion of the left corpus cavernosum cut away with it. It originated most probably from the capsule and was invading the cavernous tissue at the time the operation was undertaken. Kaufmann quoted eight cases of the primary disease and two in which it was metastatic, the usual characters being a commencement in the glans penis, a very rapid course (e.g., eight and a half and four months), with multiple secondary deposits in the viscera.

Mr. ROGER WILLIAMS described a case of Malignant Growth he had observed originate in the crus penis. It was a tubular epithelioma, and probably commenced in Cowper's gland.

The following card specimens were shown:—

Dr. H. W. G. MACKENZIE: Congenital Disease of Heart, with right-sided Endocarditis,

Mr. ALBAN DORAN (for Sir Spencer Wells): Dermoid Ovarian Cyst, Infiltration of Broad Ligament with Fat.

Dr. HAWKINS: Phosphatic Calculi in Kidneys.

MEDICAL SOCIETY OF LONDON.

Rupture of Gall-bladder.—Cancer of Colon associated with a Foreign Body.—Acute Catarrhal Laryngitis.

AN ordinary meeting of this Society was held on Nov. 18th, the President, Dr. C. Theodore Williams, being in the chair.

Mr. HASLAM (Birmingham) read notes of two cases that

had recently been under his care in the Birmingham General Hospital. The first was one of Rupture of the Gall-bladder. The patient, a man aged sixty-three, was admitted first on Aug. 5th, 1889, with a strangulated inguinal hernia on the right side; this was relieved by operation, and he left the hospital on Aug. 27th feeling perfectly well. Within twenty-four hours he was again admitted, with symptoms of peritonitis, and an inguinal hernia on the left side was down and constricted, but reducible by careful taxis. As the symptoms increased in severity, the abdomen was opened in the middle line and the peritoneum found acutely inflamed and containing a bile-stained fluid. The distension of the intestines was so great, and the man's condition so bad, that no attempt could be made to find the rent in the gall-bladder. Death occurred in eight hours. At the necropsy the gall-bladder was found to be extremely thin at its upper aspect over a space as large as a sixpence, and in the centre of this there was a small perforation. The parts about the transverse colon and stomach were very adherent, and the omentum reached into the left hernial sac. The cause of the rupture of the gall-bladder was probably the dragging due to the tension put upon the great omentum by the descent of the left hernia, or else the vomiting might have caused it. There was considerable difficulty in getting a history, but as far as could be made out the descent of the hernia preceded the peritoneal symptoms by a short time only.—Dr. WILLIAMS inquired whether jaundice was present.—Dr. DE HAVILLAND HALL wished to know the condition of the biliary ducts: Was there any obstruction leading to overdistension?—Mr. B. JESSETT asked what part of the intestine was found in the hernia.—Mr. HASLAM, in reply, said there was no jaundice present. He could pass a probe easily down all the bile-ducts. He thought it was the dragging of the omentum on the second hernia which caused the gall-bladder to give way.

Mr. HASLAM then read notes of a second case, one of Malignant Disease of the Descending Colon, associated with impaction of a foreign body. A woman, aged fifty-nine, was admitted on Sept. 5th, 1889, with the following history: For about four or five months her bowels had been difficult to open; she had often gone several days without passing a motion; during this time she had been getting thinner. For the last month there had been almost complete obstruction, and for the latter half of that time she had suffered from vomiting and pain in the abdomen. Enemata and purgatives had failed to give relief. On admission the abdomen was very much distended, and the coils of intestine were easily visible; there was considerable resonance, but no tumour could be made out. On rectal examination a small quantity of fæcal matter was found, but there was no sign of new growth. The general symptoms were thirst, dry brown tongue, vomiting at irregular intervals, quick feeble pulse, and great distress from the distension. An enema of castor-oil and turpentine was given, but nothing came away. The abdomen was then opened in the left inguinal region over the sigmoid flexure, and distended large intestine was at once found; this was sutured to the wound and left unopened. No attempt was made to find the actual cause of the obstruction, as the patient's condition would not permit of any prolonged operation. Within twelve hours from this the patient's bowels were opened, and continued to be so at intervals for the next two days—this gave temporary relief; but as there was still evidently considerable accumulation, the bowel was opened, and from this a very free discharge of fæces took place. For a few hours there was some further improvement, but she soon became weaker, and died six days after admission. At the post-mortem examination the opened intestine was found adherent to the wound; three inches above the opening there was an annular constriction, caused by a deposit of cylindrical epithelioma, that would just admit the little finger, and impacted here was a piece of bone, probably part of a rabbit's sternum. An inch and a half above this there was a rounded perforation, which must have existed for some time from the cicatrised condition of its margin; here there were some fæcal extravasation and local peritonitis. The heart was pale and flabby, the lungs showed some tubercular deposit and fibroid induration at the apices, with congestion of the bases, the kidneys were the seat of old calculous pyelitis, the intestines were soft and friable. Mr. Haslam drew attention to the fact that distended intestine was found below the seat of obstruction. This he believed was due to some leakage of flatus through this, which the patient, owing to her feeble condition, was unable to get rid of. The fact of the bowels acting after the operation was probably due to the bowel having been drawn down at that time, and either the obstructing body dislodged or a kink straightened out; this would also account for the fæcal extravasation by the adhesions around the perforation being disturbed.—Mr. BERNARD PITTS said that the occurrence of malignant disease in association with the presence of a foreign body was very rare. He related a case which had been under his own care in which he performed colotomy for annular stricture in the sigmoid flexure. The patient for two years afterwards passed fæces *per vias naturales*, the artificial anus being used only as an occasional vent. Later acute obstruction supervened, and on opening up the much contracted artificial anus, more than a dozen plum-stones were found impacted. In a second case acute obstruction followed upon chronic and he was uncertain as to its seat; he therefore performed a left lumbar colotomy. A little flatus passed by the opening, but the bowels were open naturally on the second day, and the patient progressed to convalescence. Four weeks afterwards death supervened from acute peritonitis, some fishbones having caused perforation of the gut. The case was then found to be one of cancer of the cæcum, the colotomy opening being below the point of obstruction. He advocated median exploratory laparotomy in these cases, which increased the risk but little and saved the making of an artificial anus in the wrong position. If on such exploration the disease appeared removable by excision, it was better at first to relieve the obstruction only, leaving the radical procedure till later.—Mr. JESSETT asked if, in cases of obstruction on the left side, valuable information might not be gained by passing a long tube up the rectum. He had seen the distal colon become distended after a colotomy; this he considered was due to paralysis of the gut. In cases of cancerous obstruction at the cæcum he advocated implantation of the ileum into the ascending colon, as being a preferable measure to the formation of an artificial anus.—Mr. BATTLE referred to a case on which he operated two years ago, and found a piece of bone impacted above the level of the cancerous growth.—Mr. HASLAM, in reply, could not see the value of the long tube in such cases. There were signs of obstruction low down, and this induced him to perform left lumbar colotomy.

Dr. DE HAVILLAND HALL read the notes of a case of Acute Catarrhal Laryngitis occurring in a lady aged fifty-six. The symptoms of laryngeal stenosis developed with great rapidity, and on examination the patient was cyanosed and suffering from urgent dyspnœa. The temperature was 102·4°, and the pulse 128. Laryngoscopic examination showed that the epiglottis was greatly swollen, erect, and of a bright-red colour. The ary-epiglottic folds were swollen, as were also the vocal cords, which were much congested. The pharynx and tonsils were normal in appearance. After an application of a 20 per cent. solution of cocaine, Dr. Hall scarified the larynx with Mackenzie's guarded laryngeal lancet. The immediate result was the expectoration of some bloody fluid and relief to the more urgent symptoms of dyspnœa. An ice-bag was applied to the throat, and the patient was directed to suck pellets of ice. A mixture containing three grains of iodide of potassium and ten of the bromide was ordered to be taken every four hours. Arrangements were made for the performance of tracheotomy in the event of urgent dyspnœa coming on. Next morning the patient was better, the breathing easier, and the cyanosis had disappeared. The larynx was much less swollen, and the mucous membrane had a crinkled appearance. The urine was found to be albuminous. With the exception of some congestion at the bases of the lungs, which confined the patient to bed for two or three weeks, there was no further cause for anxiety, and she left for the seaside quite convalescent. Dr. Hall drew attention to three points: 1. The rarity of urgent dyspnœa in acute catarrhal laryngitis in adults. 2. The freedom of the pharynx from implication in the catarrhal condition. 3. The treatment which was adopted.—Dr. THEODORE WILLIAMS advocated the old-fashioned plan of administering large doses of antimony in these cases, and he related a case of laryngeal phthisis which was much benefited by this treatment. Which cases were most suitable for the warm moist treatment, and which for treatment by ice?—Dr. W. HENRY WHITE described a case of acute laryngitis occurring in a plethoric man of thirty-five, who at first improved under antimony, but later developed pneumonia and phlegmonous erysipelas of the neck and

trunk. The two latter complications bore out his opinion that the cause was the absorption of a septic poison.—Dr. FLETCHER LITTLE condemned the bronchitis kettle as ordinarily used, and was likewise dissatisfied with the material employed in the construction of the tents usually erected over the beds of such patients. He had prescribed antimony in cases of catarrhal laryngitis with the greatest advantage.—Dr. BENHAM advocated the employment of emetics in urgent cases. He related an instance in which an apparently moribund patient was restored after vomiting and purgation. He also mentioned with approval the application of leeches.—Mr. PITTS thought that such cases, if not relieved by ordinary remedies, were suitable, if any were, for intubation, which answered well for scalds in children, and was a less formidable measure than tracheotomy.—The PRESIDENT said that the inhalation of exceedingly hot dry air (at 300° or 400° F.) had proved of benefit in lesions of the pulmonary mucous membrane.—Dr. HALL, in reply, said that since he had adopted the routine use of the laryngoscope in these cases he had abandoned both antimony and emetics. He thought ice should be applied both internally and externally in the laryngitis of young adults with acute symptoms and high temperature, while those cases with chest complications were more benefited by the warm moist treatment. Cases with pharyngeal inflammation as well were almost invariably of septic origin. He did not recommend the application of leeches, but he was inclined to look favourably on the operation of intubation as being preferable to tracheotomy.

OPHTHALMOLOGICAL SOCIETY.

Hemianopsia, with Recovery and subsequent Necropsy.—Size of the Cornea in relation to Age, Sex, Refraction, and Primary Glaucoma.—Treatment of Symblepharon, Ptosis, and Episcleritis.

AN ordinary meeting of the above Society was held on November 14th, the President, Dr. J. Hughlings Jackson, in the chair.

Mr. DOYNE read notes of a case of recovery from Hemianopsia, with subsequent necropsy, occurring in an old man. The onset of hemianopsia (right-sided and homonymous) was sudden; the fields of vision recovered in the course of a fortnight, but subsequently a quadrant of the opposite side of each field was lost. Death occurred from cerebral apoplexy. At the necropsy, in addition to the extensive extravasation which caused death, there were found symmetrical lesions (softening) on both sides of the brain in the cortex of the occipital lobe, one evidently more recent than the other.—Dr. JAMES ANDERSON gave an account of a case of homonymous hemianopsia, with recovery, followed by death and necropsy, occurring in a warehouseman aged forty-one, sent to him by Mr. Waren Tay on March 28th, 1889, complaining of failure of vision for six weeks with severe frontal headache, and during the previous week much failure of memory and mental depression. He had been losing flesh for four months, had had no fit, no vomiting, and no loss of sensation or of motor power so far as he knew, but during the previous week he had had two severe falls from inability to see to his right side, and his speech and general manner had altered in character. The family and personal history threw no light on his trouble. He had eight healthy children, and denied all history of venereal disease. He was much depressed about himself, thin and anxious, and had some difficulty occasionally in finding words, but there was no loss of gross motor power or of general or special sensation except as regards vision. His gait and reflexes were normal, and the heart, lungs, and kidneys apparently healthy. The ocular and pupillary movements were normal, and with the exception of an old nebula on the left cornea there was no pathological change in either eye, the discs and fundi being quite healthy. He could read Jaeger 1 with each eye separately, but only with difficulty. The right halves of both visual fields were lost up to but not including the line through the fixation point; the left halves were of average extent. From the symptoms, Dr. Anderson concluded that the patient had an intra-cranial growth, probably malignant, and situated in the medulla of the left occipital lobe, also that a hæmorrhage had taken place into the tumour at the beginning of the previous week. He was admitted on March 29th into the London Hospital, and prescribed full doses of sod. iod. and liq. hydrarg. perchlorid. Perimeter charts taken on March 31st by Dr. Charles Wilson showed right homonymous hemianopsia, with some contractions of the remaining left half of the right visual field. Within a fortnight the headache and mental symptoms had much subsided, and the perimeter chart of April 18th showed only slight contraction of the right halves of the visual fields. Mr. Grimshaw, the clinical clerk, who watched the fields from day to day, believed that the right halves varied considerably, being smaller on days when there was severe headache. The patient left hospital on May 18th, was seized with severe headache and vomiting on May 22nd, and on the 29th had a transient attack of left hemiplegia, which had quite passed off when he was readmitted into the hospital on June 20th. The lower quadrants of the right halves of both visual fields were at this date deficient nearly up to the vertical line through the fixation point, especially on the left side, but otherwise the fields were of good extent, and reading vision was still Jaeger 2 with the right and Jaeger 3 with the left eye, and the fundi were normal. From this time he rapidly deteriorated in mind, and became extremely troublesome; his vision seemed to be more defective, but he would not allow his eyes to be examined. On Aug. 9th he was sent to Banstead Asylum, where he continued in a demented state and died on Oct. 1st. The necropsy made by Dr. Claye Shaw showed a recent blood clot in the posterior cornu of the left lateral ventricle of the brain, with hæmorrhage and softening in the tissue external to this, involving the whole of the angular gyrus up to its surface, the central part of the area being occupied by a walnut-sized cavity containing a straw-coloured fluid. The tissue replacing the angular gyrus was found to be gliomatous in structure. The rest of the brain and the remaining organs of the body seemed to be healthy, and there was no evident explanation of the temporary left hemiplegia observed four months before death. The improvement of the patient under antisyphilitic treatment, and the subsequent transient left hemiplegia, caused some doubt as to the early diagnosis, which was, however, confirmed by the necropsy. Dr. Anderson stated that he had not previously met with a case of recovery from hemianopsia; that in cases of hæmianæsthesia with hemianopsia, for example, from a vascular lesion in the area of the posterior cerebral artery, even when the former group of symptoms disappeared, the latter, very generally at least, persisted. Hæmorrhage had in this case pretty certainly taken place into the tumour at the date of the patient's coming under observation, and a second hæmorrhage into it had been the immediate cause of death. The case was interesting in relation to modern views of visual localisation.—The PRESIDENT said that the subject of the two papers just read concerned the very important question of cerebral localisation. He mentioned two cases which had been under his own care: in one hemianopsia was associated with hemianæsthesia; in the other there was much mental confusion, but neither hemiplegia nor hemianæsthesia. He also referred to the frequent association of hemianopsia and word-blindness.—Dr. HILL GRIFFITH inquired if Dr. Anderson's case had exhibited the hemiopic pupillary reaction.—Dr. S. J. TAYLOR spoke of a case of hemianopsia in which the fields of vision regained their normal limits. Death occurred shortly after, but no necropsy was obtained. Dr. STEPHEN MACKENZIE thought that the two cases now reported pointed rather to the hemianopsia being due to pressure exerted by hæmorrhage on the parts of the brain concerned in vision. The fluctuations in the fields of vision during recovery lent support to that view, rather than to the supposition that the function was taken on by some other part of the brain. He considered that the symptoms were caused by vascular changes in propinquity to the visual centres and the fluctuations in the field by variations in blood-pressure.—Mr. LANG referred to two cases of recovery from hemianopsia, and supported Dr. Mackenzie's views.—In reply, Dr. ANDERSON said that in his case the pupil acted well to light thrown on to either half of the retina. In Mr. Doyne's case it was certain that the two areas of softening in the brain were of different dates; the older patch being in the site of the hæmorrhage which occurred at the time of onset of the hemianopsia; the more recent patch marking the lesion which caused the subsequent loss of a quadrant of the fields in their opposite halves.

Mr. PRIESTLEY SMITH read a paper on the Size of the Cornea in relation to Age, Sex, Refraction, and Primary Glaucoma. He gave an account of certain facts obtained by measurement of the cornea in a large number of human eyes. The inquiry had been undertaken to test the

truth of a suggestion he had previously made to the Society—namely, that small corneæ are specially connected with a liability to glaucoma in its primary form. The measurements were made by means of a simple keratometer devised for the purpose.[1] The horizontal diameter only was measured, and the nearest half-millimetre was noted. The eyes examined were chiefly those of private and hospital patients with refractive errors or slight ailments such as could not invalidate the result. A number of healthy eyes of old people in a workhouse and an almshouse were also examined. A number of persons affected with primary glaucoma were examined in like manner. The normal cornea: 250 males and 250 females were examined, giving a total of 1000 eyes, representing all life periods from five to ninety years of age. Age, sex, and refraction were noted in every case. Analysis gave the following results: General average, 11·6 millimetres, size variable in individual cases, but not often greater than 12 or less than 11 millimetres; number greater than 12, 34 per 1000—namely, 12·5, 30 eyes; 13, 2 eyes; 13·5, 2 eyes; number less than 11, 17 per 1000—namely, 10·5 in every instance. Stature and size of head were not systematically noted, but there were many larger corneæ in smaller persons and smaller corneæ in larger persons, and therefore no general proportional relation existed in this respect. Classification according to age gave the following results: Average, between five and ten years, 11·67; between ten and twenty, the same; between twenty and forty, nearly the same; after forty, rather smaller, but the difference not large enough to be very positively asserted. The cornea, then—or at least its visible part—attains its full diameter very early in life, many years before the rest of its body completes its growth. Comparison of other data relating to size and weight of different parts during intra- and extra-uterine life (quoted from Vierordt and Manz) shows that the development of the cornea is precocious in relation to that of the eye as a whole; that of the eye in relation to that of the brain; that of the brain to that of the whole body. In advanced life the height of the body and the weight of the brain diminish; the apparent slight diminution of the cornea at the same period may perhaps represent an actual shrinkage due to the same slackening of nutrition; but this is merely a suggestion. Classification according to sex showed a very slight but probably a real difference in each life period, the cornea of the male being on the average about one-tenth of a millimetre the larger. Classification according to refraction showed the unexpected fact that the size of the cornea bears no relation to the refraction, being no smaller in hypermetropia, no larger in myopia, than in emmetropia. This was further proved by comparison of 90 highly hypermetropic with 90 highly myopic eyes. The size of the cornea is determined early in life, and is not affected by the greater or smaller extension of the posterior hemisphere which may occur later. The cornea is full grown at five, or earlier; at any rate, it does not add one-tenth of a millimetre to its diameter after this age. The lens, a near neighbour of the cornea, is full grown only at the other end of life, and, if the life be a long one, adds at least 2 millimetres to its diameter after the cornea has ceased to enlarge. This involves a gradual change in the mutual relations of the two, which may have important consequences. The cornea in primary glaucoma: Sixty-nine persons having primary glaucoma in one or both eyes were examined in like manner. Number of glaucomatous eyes, 99; healthy, 32; some of the patients had lost one eye; the statistics comprise the whole. Average, 11·27; maximum, 12; minimum, 10. Number of corneæ measuring less than 11 millimetres (spoken of as "small corneæ"), 34—that is, 26 per cent. Comparing the glaucoma group with the same life periods in the healthy group, the small corneæ formed 26 per cent. of the one, 4 per cent. of the other. More important even than this, among the 1000 eyes of healthy persons there was not one cornea so small as 10 millimetres, while there were 9 such in the much smaller glaucoma group. A definite relation between the small cornea and primary glaucoma was thus proved. The explanation lay, in the speaker's opinion, in an undue proximity between the lens and the surrounding structures. But this explanation raised certain questions which called for answer. Is the smallness of the cornea a consequence of the glaucoma? The changes occurring at the angle of the anterior chamber might be supposed to opacify the corneal margin. This idea was disproved by the fact that in 7 of the glaucoma patients both corneæ were small, while only one eye was glaucomatous; in one of these the other eye was attacked later. This showed that the smallness of the cornea precedes the glaucoma, and is not caused by it. Is the small cornea small from youth up, or does it become so in later life? There are grounds for holding the latter view. Small corneæ are much commoner in the second half of life; but they are not entirely wanting in early life, and may at this early age be associated with glaucoma (witness Mr. Hartridge's case shown to the Society on March 11th, 1886). When the cornea is small, is the globe small in proportion? As shown already, the refraction gives no answer to this question; it can only be determined by a sufficient number of measurements of cornea and globe. In a recent case of the speaker's what appeared to be a faultless iridectomy, on a glaucomatous eye with a cornea of 10 millimetres, was followed by no relief of the glaucoma. On excision some months later, the eye proved to be exceptionally small, like the cornea—namely, 21 millimetres antero-posteriorly by 21 vertically by 22 horizontally. The refraction of this eye had been 5 D. of hypermetropia. Lastly, is the small cornea associated with a proportionally small lens? If so, the speaker's explanation of the matter falls to the ground. In the case described, the failure of the operation had arisen through obstruction of the wound, which could not have been made more peripherally, by the margin of the lens. Other specimens in the speaker's possession showed the same result. In the important case published by Hocquard and Masselon—microphthalmos with glaucoma—the eye resembled the one above described, but in an exaggerated form, and the lens was found to be "much too large for the eye." The structnral conditions in question—large lens, small cornea—were not necessarily present in primary glaucoma, for the disease could occur in the absence of both; but they were conditions which either singly or together give to certain eyes a greater than ordinary predisposition to it.

[1] See Ophthal. Review, November, 1886.

Professor SNELLEN (Utrecht) described an operation for the cure of Symblepharon, which had given him very satisfactory results. His plan was to free the adherent lid, leaving any conjunctiva which might be present attached to the globe. A flap of skin was then dissected from the cheek, having a narrow pedicle close to the border of the lid near the outer canthus; a buttonhole being made beneath this flap from the inner surface of the eyelid, the flap was drawn through and attached to the raw surface of the lid. The conditions were peculiarly favourable for plastic operations, and Professor Snellen had been much pleased with the vitality shown by the flap. This plan had also proved of value in enlarging a socket for the reception of an artificial eye. Professor Snellen had recently adopted the following operation for cases of Ptosis. A ligature was passed from without inwards through the entire thickness of the lid at the upper edge of the tarsus; the needle was then passed outwards through all the structures but the skin at a point near the upper limit of the conjunctival sac, and made to perforate the skin near the original puncture. The ends of the ligature were then tied tightly on the surface of the lid. Three such ligatures were employed disposed rather towards the nasal side, on account of the position of the levator. In Episcleritis Professor Snellen recommended the injection once or twice a week of a 1 in 5000 solution of corrosive sublimate between the swollen and thickened conjunctiva and episcleral tissue. By this means he had obtained good results in a few cases of very intractable episcleritis.

The following living and card specimens were exhibited:—

Mr. SILCOCK: (1) Anomalous Position of the Ciliary Processes conjoined with Shrunken Lens and (?) Persistent Capsulo-pupillary Membrane; (2) Micro-cornea in a highly Myopic Eye.

Mr. KELSALL: (1) Aniridia; (2) Syphilitic Neuro-retinitis.

Mr. TATHAM THOMPSON: (1) Photograph of Unilateral Facial Hypertrophy, with Hypertrophic Ptosis; (2) Model illustrating Strabismus, Strabotomy, and Muscular Advancement.

EPIDEMIOLOGICAL SOCIETY OF LONDON.

The President's Inaugural Address.

A MEETING of this Society was held on Wednesday, Nov. 13th, Sir Thomas Crawford, K.C.B., M.D., LL.D., President, in the chair.

In thanking the members for the honour they had con-

ferred upon him in electing him President for the ensuing year, Sir T. CRAWFORD alluded to the good work done by the Society during the forty years of its existence in promoting correct views as to the nature, causation, and prevention of the diseases commonly known as epidemic, and in combating the erroneous notions still too prevalent among the non-medical public, which had their origin in an ignorant and superstitious dread of the "pestilence that walketh in darkness." He recited the aims of the Society as enunciated in the articles of its incorporation, remarking that though the Transactions of this Society, and of others that had of late years engaged in the same field, as well as the reports of the Local Government Board and of the medical departments of the army and navy, bore witness to an immense amount of useful work in tracing the causes of preventable disease, much still remained to be done before the public should be educated into realising that they were individually and collectively responsible for a large proportion of the deaths, illness, and loss of labour and money consequent thereon, which they were too much inclined to refer to the mysterious dispensation of Providence instead of to their own violation of those physiological laws which the Creator had revealed for their guidance. Many of the expressions in common use even among the best informed were but indications and cloaks of our ignorance, such especially as epidemic prevalence, constitution, influence, waves, &c., and would, with the progress of clearer knowledge, be modified or discarded as the true causes of the prevalence and progress of these diseases should be more clearly recognised. Quoting Sir W. Jenner's opinion that the acute specific diseases, "dissimilar as they are in their pathology, are so intimately connected in their etiology that the removal of the causes of one of the groups would certainly and greatly diminish the mortality from all," he said that the materials afforded by the reports of the mortality and sickness of the British army, scattered as it was over every quarter of the globe, under conditions more fully ascertainable than those of the civil population, presented a rich mine of data on which to base conclusions of the highest practical value, the more so as its stations were distributed over most of the regions where epidemic diseases prevailed, and along the routes of commerce by which they were believed to be carried through human intercourse, its average strength for the year 1887—from which he would draw his statistics—having been 195,932, exclusive of our native Indian forces and local colonial troops. He would confine his figures to the subgroup (1) of general diseases in the nomenclature of the College of Physicians, or the 22 often described as zymotic, and his remarks mainly to enteric fever. The strength of the troops for the time being quartered in the three divisions of the United Kingdom, and the rates per 1000 of admissions, deaths, and men constantly sick, were respectively thus: England, 72,329—17·2, 0·40, 0·99; Scotland, 3635—13·2, 0·27, 0·57; Ireland, 25,150—20·2, 0·48, 1·09. Of the total admissions under this head in the United Kingdom, 137 were of enteric fever, of whom 25 died, being just two-thirds of all deaths under this group. England contributed 61 cases with 16 deaths; Scotland, 3 cases with 1 death; Ireland, 73 cases with 9 deaths. No military district was entirely exempt; but in many instances no cause was assigned, and in some the cases were believed to have been imported—that is, contracted elsewhere by men on leave of absence. In a large proportion, however, the fever was evidently due to bad drainage and impure water—notably at Shoeburyness, where a foul open sewer from the village was held to account for 5 cases with 4 deaths, and at Parkhurst 4 cases with 2 deaths were ascribed to an impure water-supply; 50 cases with 4 deaths were reported from Dublin alone. The sanitary condition of the barracks had always been very unsatisfactory, and measures had been undertaken for their improvement; but that of the city itself, and especially the horrible state of the River Liffey, must be greatly altered before Dublin could be rendered a healthy station. The President then quoted statistics bearing on the sanitary condition of Gibraltar, Malta, Egypt, and different stations of India, and comparing the figures thus given, expressed the opinion that great strides had been made during the last thirty years in the sanitary administration of the army. But as to our knowledge of the etiology of disease, he believed we were still far from certainty. Notwithstanding the recent progress of bacteriology, he could not accept the germ theory as sufficient, in the face of sporadic cases occurring in the absence of any known previous local prevalence of the disease; nor was the pythogenic hypothesis more satisfactory to his mind, since enteric fever had broken out at stations in Afghanistan probably never before occupied by man, at any rate in the then present campaign. He could not look on enteric fever, diphtheria, &c., as originating, like small-pox, solely from contagion, but believed that the two great factors concurring in their production were the influence of man on his surroundings and of his surroundings on man. The former included all that we know as filth; the latter comprised not only insanitary conditions (of climate, as being beyond our control, he would take no account), but also the habits and food of a population. As regards the last, the extension of commerce had placed nearly all civilised nations on a level and in circumstances very different from those under which they were when they subsisted on the produce of their own soil; but there was no doubt that in the past the diverse characters of the peoples of Scotland and Ireland had been to a great extent the result of their diet, in the one case of oatmeal and pease brose, in the other of potatoes; might we not attribute to diet and surroundings the different susceptibility of various races to different forms of disease? He reviewed the evidence of Royal Commissions during the last fifty years on the housing and conditions of the working classes in our rapidly growing cities, and pointed out the immense improvement shown by the average mortality, though even now these were bad enough in some localities; and referred, in passing, to the reports on the longevity and vitality of the Jews, and their physical development, as well as to the returns of the recruiting department of the army and the deliberations of the London School Board on the semi-starvation of a large proportion of the scholars. In any schemes for the suppression or diminution of preventable diseases, he was convinced that, valuable as might be the aid afforded by notification, isolation, disinfection, &c., the chief attention should be directed to the amelioration of the material and moral conditions of the masses, so as to render possible the development of a race of higher physique, better able to resist the attacks of disease.

OBSTETRICAL SOCIETY OF LONDON.

A MEETING of the above Society was held on Wednesday, Nov. 6th, A. L. Galabin, M.D., President, in the chair.

The following specimens were shown:—Dr. BOXALL: Pelvic Hæmatoma following Delivery; death four hours after labour.—Dr. W. S. A. GRIFFITH: Microscopic Sections of the Uterus at different periods of the Puerperium; showing complete absence of the alleged fatty changes.—Dr. CULLINGWORTH: Uterus, Ovaries, and Tubes from a Case of Cæsarean Section.—Dr. DAKIN: Retroflexed Fœtus with Ectopia of the Viscera and Talipes Valgus.—Dr. W. DUNCAN: Myoma of the Broad Ligament.

A report was read on Mr. ALBAN DORAN'S specimen of Membrane passed from the Uterus, exhibited at the July meeting.

Large Chylous Cyst of the Mesentery. — This paper was read by Dr. RASCH. An anæmic girl, aged twenty-one, was admitted into the Deaconesses' Hospital at Tottenham on February 9th, 1889. About a month before admission she lifted a heavy trunk; a week later she was seized with severe abdominal pain. A large, roundish, elastic swelling occupied the middle of the abdomen, extending mostly to the left. Its upper extremity reached two inches above the umbilical level. The pelvic organs were normal. At the operation, on March 22nd, a glossy, pale-pink tumour was discovered. A milk-white fluid exuded on tapping. On exploration it became evident that what appeared to be a cystic tumour were the two layers of the mesentery, separated from each other by a collection of milky fluid. The inside of the cyst was intensely congested, and oozed freely. The cyst cavity was sponged clean, and, like the peritoneal cavity, washed out with warm boracic lotion. The cut edges of the cyst were sewn to the abdominal wound, and the cavity packed with iodoform gauze. The whole was covered with sublimate gauze after dusting with iodoform. Six pints of the cyst contents were collected. Next day the fluid, at first white, became pink, and contained a firm, pinkish clot. The microscope and chemical examination appeared to prove that the fluid was chyle. No epithelial lining could be found on a small piece of the cyst wall which had been cut away for examination. The patient made a fair recovery. The milk-white fluid

oozed for some time from the cyst cavity, which at length closed up. During this drainage she lost weight considerably, and regained weight as the escape of fluid lessened. Dr. Rasch believed that this was the first recorded case of a chyle cyst of the mesentery occurring in a woman. Winiwarter has recorded a chyle cyst on the right hypochondrium of an infant. Dr. Kilian operated on a large retro-peritoneal lymph cyst. Dr. Rasch did not think that in his case the cyst arose from obstruction of the thoracic or other lymphatic duct, but more probably from the rupture of a mesenteric lymphatic during exertion. Dr. Rasch then spoke of the difficulty of diagnosis. Mesenteric tumours generally appeared first in the middle line, near the umbilicus, and had free transverse but little vertical mobility. Professor Bergmann's case of chyle cyst of the mesentery occurred in a man aged sixty-three. Dr. Rasch, lastly, justified his treatment as preferable to extirpation of the cyst or closure, after emptying of the contents, without drainage.—Dr. WILLIAM DUNCAN suggested that the tumour in Dr. Rasch's case might well be dermoid, and not chylous.—Dr. BOXALL could scarcely see how the escape of chyle into the loose cellular tissue of the mesentery could produce a cyst, but he thought that the possibility of a chylous cyst in that situation, originating in an echinococcus cyst, should be entertained. Hydatid cysts were sometimes barren, and if blood and bile could find their way into them, there were *primâ-facie* grounds for believing that in a situation in which lacteals abounded chyle might do the same, and distend the cyst, so that all trace of its pristine nature might eventually disappear.—Dr. C. H. CARTER referred to his case of large cyst of the mesentery simulating an ovarian cyst, published in the *British Medical Journal*, vol. i. 1883, p. 7. He agreed with Dr. Rasch that a tumour of this kind should not be enucleated, but stitched to the abdominal walls and drained.—Mr. ALBAN DORAN considered that Dr. Rasch's definition of the tumour as a chylous cyst was perfectly reasonable and probably correct. Non-ovarian dermoids of the abdomen were rare; dermoid cysts of the ovary frequently became detached from their pedicles and adherent to the omentum, mesentery, or bowel—an obvious source of fallacy, especially when the pelvic organs were not explored. In Dr. Rasch's case these organs were explored.—Dr. MATTHEWS DUNCAN mentioned a case where Mr. Thornton removed a large mesenteric cyst with clear contents. The operation showed no connexion with the uterus and broad ligaments. In another case Mr. Langton removed both ovaries, converted into dermoid cysts, and also took away a third dermoid tumour from between the layers of the mesentery; it had no connexion with either ovary.—Mr. DORAN remarked that an exogenous secondary cyst, springing from the surface of an ovarian dermoid, might easily become detached, and so be taken for a non-ovarian tumour.—Dr. RASCH was confident that the cyst in his case was chylous, and not of hydatid origin or dermoid.

Vesico-utero-vaginal Fistula.—Dr. CULLINGWORTH read notes of a case where incontinence of urine followed instrumental labour. The patient was thirty-seven years of age. A vesical fistula was found in the middle line of the anterior vaginal wall, running transversely, just in front of the cervix, in the furrow formed by the reflexion of mucous membrane from the vagina to the cervix. The fistula admitted the tip of the finger up to the first joint. The portion of the cervix projecting into the vagina was intact; but on passing the finger through the fistulous opening a laceration with ragged edges was detected higher up in the posterior wall of the bladder, extending into the cervix. On passing a uterine sound into the cervix, the point entered the bladder through the laceration. An operation was performed when the morbid condition was over two years old. Dr. Cullingworth divided the anterior lip of the os uteri; the cervical laceration at once gaped widely, and by elevating the anterior margin of the vaginal portion of the fistula with a hook it could be seen to extend obliquely upwards and to the left to the distance of about an inch. The edges of the laceration were then freshened and united by three or four silkworm-gut sutures passed from the outer aspect of the cervix and tied, presumably within the bladder. The ends, left long enough to reach the vulva, were brought through the vaginal portion of the fistula. By the milk test the vesico-uterine fistula was proved to be closed. On the thirteenth day the stitches were removed, and the wound appeared to have healed. The vaginal portion of the fistula was closed by operation six weeks after the first procedure; it had already undergone contraction, and its long axis was no longer transverse, but nearly parallel with the axis of the vagina. The sutures were removed on the eighth day. The patient shortly afterwards left hospital perfectly cured. Dr. Cullingworth called attention to his practice of leaving the ends of the sutures sufficiently long to hang down in the vagina. This plan greatly facilitated removal and avoided much irritation from pricking up of the vaginal mucous membrane. Had the first operation not succeeded, Dr. Cullingworth intended to dissect up the bladder from the cervix and deal with the uterine fistula after Dr. Champneys' method.—Dr. W. T. A. GRIFFITH had recently operated on a similar case by the usual operation. The bladder remained watertight, but he had heard that the menstrual blood passed entirely into the bladder. He offered to correct this condition, but the patient was so pleased with the freedom from the ordinary inconvenience of menstruation that she declined to have anything done.—Dr. WILLIAM DUNCAN always used silver sutures in vesical fistulæ, fastening them with coils and shot to facilitate removal, and passing all the sutures through a piece of india-rubber tubing, to prevent irritation of the vagina.—Dr. CULLINGWORTH referred to a valuable memoir on the subject by Mr. Milton, of the Civil Hospital at Cairo, published in the St. Thomas's Hospital Reports for 1887. Mr. Milton had operated on fifty cases; in some patients more than once. The native women, who simply waited till the child was born, were very subject to urinary fistulæ. On the other hand, lacerated perineum was scarcely ever seen. He trusted that Mr. Milton's paper would not be overlooked.

Lupus of the Vulva.—Dr. LEWERS read notes of this case. It was that of a woman aged twenty-two, and married six years, who was admitted into the London Hospital in August, 1888. There was a history of gonorrhœal but not syphilitic infection. A small growth appeared on the vulva, which became swollen. On admission, a spherical pendulous lump, whitish and smooth on its inner surface, brownish and nodular on its outer aspect, was found growing from the left labium minus, prepuce of clitoris, and part of the right inner labium. The labia majora were swollen, not pitting on pressure, and were studded externally with small warty prominences, also seen on the perineum and mons veneris. On August 28th, 1888, the tumour was cut away by the thermo-cautery, its base being first held secure by two Wells's large pressure forceps. In January, 1889, a lump the size of an almond was pinched up and dissected out from the right side of the vulva by the thermo-cautery. The labia majora remained swollen. Dr. Lewers found that the tumour consisted of an enormously hypertrophied labium minus. The tendency of lupus was towards hypertrophy, combined with ulceration, and there had been a recurrence in this case after apparently complete removal of the hypertrophied and ulcerated tissue. The general health of the patient had been little, if at all, affected.—Dr. WM. DUNCAN noted that, in the discussion on Dr. Matthews Duncan's paper on Lupus of the Vulva, Mr. Jonathan Hutchinson expressed his opinion that the cases were syphilitic, and not lupous. With this opinion Dr. W. Duncan strongly coincided, and he considered that Dr. Lewers's case was hypertrophic syphilide, exactly similar to several which had come under his own care. He asked if Dr. Lewers had put the patient under a course of strong antisyphilitic remedies.—Dr. LEWERS stated, in reply, that when Dr. Matthews Duncan read the paper referred to, it was agreed that the administration of antisyphilitic remedies decided nothing, since late results of syphilis were often unaffected by these specifics. Dr. Lewers gave reasons for rejecting any suspicion of syphilis in his own case. Winckel figured, in his "Diseases of Women," a morbid condition identical with that which was seen in Dr. Lewers's patient under the name "elephantiasis of the vulva."

MIDLAND MEDICAL SOCIETY.

WEDNESDAY, NOV. 6TH.

MR. ROSS JORDAN IN THE CHAIR.

DR. WARDEN read a paper on Parosphrasia and Paragensia.

Heart Disease.—Dr. FOXWELL brought forward a case of doubtful cardiac condition, which he was inclined to regard

as due to congenital disease. The patient, a boy of twelve, had his apex beating in the nipple-line, whilst the superficial dulness reached to the third cartilage and mid-sternum. The apical first sound was churning in nature, with a semi-thrill, but no murmur. The second sound was much accentuated, and over the pulmonary area it was doubled. The apical impulse was hypertrophied, and there was epigastric pulsation. The pulse was small and diminished on raising his arm. The boy appeared to be in excellent health, and, except for much sweating at night, and a curious total alopecia occurring suddenly eight months ago, and still persisting, there was nothing to note in either family or personal history. The urine was normal. Dr. Foxwell also showed a girl with advanced Phthisical Cavities at the right apex, breaking down at the left, who had been under his care for eighteen months. She first came to him for dyspepsia, which soon disappeared, and ever since she has been in good health, so much so that it has been extremely difficult to keep her under observation. She has remained well nourished, and quite able to do her work, though meanwhile the disease has made considerable progress. There was no previous history of any severe illness, though the girl remembered having a troublesome cold about two years ago.

Alcoholic Paralysis.—Dr. SUCKLING read the notes of a case of a man aged thirty-eight (a baker), who had been in the Queen's Hospital for three months suffering from alcoholic paralysis, and who was now cured. Besides the usual symptoms of the disease, there were two or three symptoms of much interest. He had slight optic neuritis, and dropped wrist was well marked, being more pronounced than dropped feet. Ataxia was also well marked in both upper and lower extremities, the muscular sense being very defective. The "reaction of degeneration" was present in a slight degree. The man had been a heavy drinker of spirits, and had suffered from alcoholic epilepsy and delirium tremens. Dr. Suckling laid stress upon the occurrence of optic neuritis in chronic alcoholism, and pointed out that cases of optic neuritis and ocular palsy due to alcohol might be mistaken for cerebral tumour, vomiting and headache being usually present also in the former. The knee-jerk had not yet returned, but this was the only remaining sign of disease.

Mr. CHAVASSE showed the following specimens:—1. A Tumour weighing nine ounces, removed from the thyroid gland of a woman aged forty. The history showed that its existence had been noted in the position of the right lobe of the gland very early in life, and a marked increase in size always followed each pregnancy. After the last parturition, fifteen months ago, the growth was rapid, causing displacement of the trachea, dyspnœa, and distressing symptoms. Recovery followed operation. 2. A Spindle-celled Sarcomatous Tumour the size of a Tangerine orange, removed from the abdominal wall immediately above the level of the umbilicus, of a lady aged seventy-seven. A tumour in the same situation was excised twenty-seven years ago by Sir W. Fergusson; again, fourteen years ago, by Mr. Carden; and, three years ago, by Mr. Chavasse. The present growth first manifested itself in April last, and its increase in size was more rapid than on previous occasions. 3. The Right Halves of the Thyroid and Cricoid Cartilages, removed by Laryngectomy. The patient was a boy aged five, who, as the result of diphtheria and intubation, had complete stenosis of the larynx. Ten days after the operation the condition of the patient was very satisfactory.

Mr. BARLING showed a girl aged seventeen the subject of Congenital Syphilis. She is the eldest of eight children, and the only one showing evidence of the disease. She is quite deaf, has double interstitial keratitis, Hutchinson's teeth, and severe ulceration of the palate. The soft palate is adherent to the base of the tongue, and food passes into the pharynx through a perforation on the right side, which is not more than half an inch in diameter.

BURIAL REFORM ASSOCIATION.—At the public conference held on the 14th inst., at the Church House, under the presidency of the Bishop of Marlborough, the following resolution was proposed by Dr. Norman Kerr, seconded by General Lowry, and agreed to unanimously: "That the true principle for the disposal of the dead body lies in providing against its becoming injurious to the living, and that, when buried, the body should be buried simply in a perishable coffin, and in suitable and sufficient earth."

Notices of Books.

A Text-book of Human Physiology. By AUSTIN FLINT, M.D. Fourth Edition. Pp. 872. London: H. K. Lewis. 1888.—Three editions of this work have been exhausted, and on comparing the present with the first edition, we find that the author has accomplished the rare feat, in these days, of reducing the size of the volume (even with larger type) by about one hundred pages, whilst still presenting in a thoroughly readable form a faithful reflex of the existing state of physiological science. A new plate of the corpuscles of the blood has been introduced, an old and erroneous one of Haeckel has been removed, and several woodcuts have been replaced either by better ones or by those illustrating new views—as, for example, Stirling's scheme of the course of the accelerant fibres. The additions, as well as the omissions, are just such as might have been expected from an author who has had large experience in teaching, and who sees the importance of riveting the attention of the student by an orderly and continuous exposition of facts and of principles, rather than by the presentation of a number of details, which can only be remembered by a great effort, and then only for a short time. As an illustration we may refer to the section on the quantity of the blood. In the first edition the whole experiment made by Lehmann and Weber on two criminals, with the weights of the salts obtained by examination of the different samples of blood, were given, whilst in the present edition the author judiciously gives the results only in general terms. So also the long list of the measurement of the red corpuscles of the blood given by Gulliver has been omitted. The cause of the coagulation of the blood is given on Schmidt's view. No reference is made to the observations of Green on the influence of the different inorganic salts—such as calcium sulphate—present in the plasma in the act of coagulation, or of Wooldridge's theory of the influence of lecithin, though both are of some importance. The work being primarily intended for students, Dr. Flint has rightly, we think, given very short accounts of the instruments and means by which the data of physiology have been established, and has contented himself with pointing out the conclusions that have received general acceptance. A short account of the histology of each organ precedes the description of its functions. Thus, under the head of the Nervous System the structure of the medullated and non-medullated fibres, the mode of termination of nerves in muscle and gland, in Paccinian corpuscles, in end bulbs, and the characters of ganglion cells are given in tolerably full detail. Dr. Flint does not attempt to theorise, and we find no conjectures respecting the uses of the cerebellum, or of the destiny of glycogen. The work is well got up, and reflects credit on the publisher.

Handbook of the Diagnosis and Treatment of Skin Diseases. By A. VAN HARLINGEN, M.D. Second Edition. Philadelphia: Blakiston and Co.—The fact that a second edition has been called for shows that the author has to some extent succeeded in his modest ambition of producing a work of "ready reference for the practitioner," and it must be admitted that the book is a fairly good one of its class. In this edition Dr. Van Harlingen has introduced some new short articles on the rarer affections unnoticed in the first, and has given several illustrations in black and white of a few of the less common diseases, such as leprosy, fibroma, and dermatolysis, &c. The descriptions are clear, and for the most part correct, and the treatment occupies a good proportion of the space assigned to each disease. In pursuance of his aim of ready reference, the articles are placed in alphabetical order, and so of course the relation-

ship of the diseases is not indicated, but it is useless to cavil over details. There are always some persons who like their mental pabulum served up in small portions, and for these the author has done his best to provide.

A Dream of the North Sea. By JAMES RUNCIMAN. London: James Nisbet and Co., Berners-street, W.—We have here a graphic description of the isolation and danger connected with a fisher's life on the North Sea during winter, and a sketch in story of the process by which help, moral and medical, has reached him through the Deep Sea Mission. The hero of the tale is an honours graduate in arts and medicine of Cambridge, Lewis Ferrier, who foregoes the advantages of a professorship in order to employ his energies in organising a system of medical aid for the smacksmen. A yachting cruise introduces him to the storm, sickness, and surgery of the "banks." A perilous January spent in company with a friend on board a mission smack in the same bleak region adds greatly to his usefulness and his experience of hardship. He runs numerous risks, and twice at least is nearly drowned, but always carries himself with admirable patience and resolution, and returns to dry land more determined than ever to turn to account the lessons learned at sea by providing if possible an efficient ambulance and hospital service for the hardy seamen whose unspoken sufferings he has dared much to alleviate. Meantime an elderly millionaire on shore has become interested in the work. Several of his friends catch the infection. An influential company meet to talk the matter over and to hear the doctor's narrative of the fishermen's perils and endurance, with the result that before another winter a small steamship is built and sent to sea as a floating hospital, and a sailing vessel is in process of construction for the same service. Notwithstanding that the "dream" is largely one of stormy weather and hard work, it abounds in lively and chatty passages and touches of human interest. An appendix reminds the reader that it has to some extent come true, since one cruising hospital is now on the fishing station, and another is being constructed, while the cost of building a third, and partly that of a fourth, has been subscribed. When we reflect that in 1888 no fewer than 7485 sick and injured fishermen were relieved by the surgeons and skippers attached to the Mission, we can concur in the author's fervent hope that before long further provision will be made for the maintenance and due extension of this most useful branch of medical service.

Etude Critique du Traitement des Salpingites, et, en particulier, du Curettage de l'Utérus dans la Salpingite Catarrhale. Par ALEXANDRE RISKALLAH. Paris: Jouive. 1889.—This is a Paris thesis, the contents of which are sufficiently set forth in the title. The author reviews old-fashioned treatments, and pleads for the restriction of spaying. In our experience the symptoms of tubal disease are far too vague for any certain diagnosis. In the vast majority of cases diagnosis cannot be advanced beyond suspicion. The object of treatment is to produce a derivative action in the neighbourhood of the tubes rather than at a distance from them—e.g., by counter-irritation on the skin. The uterus is dilated, curetted, and injected with iodine. Illustrative cases are appended. May we implore our French medical brethren to pay a little more attention to the orthography of foreign names and words? There is, in this treatise, hardly a foreign proper name or reference which does not contain misspellings. One cannot help asking oneself if those who make such terrible havoc of foreign orthography are really competent to read and understand the works which they so misquote. In the case of a larger work we should give a list.

New Inventions.

AN IMPROVED TRACHEOTOMY DILATOR.

TWO years ago, when house-surgeon to Mr. Savory at St. Bartholomew's Hospital, I got Messrs. Ferguson to make me a tracheotomy dilator which I think is a distinct improvement on the ordinary pattern. Just as in Mr. Walsham's tracheotomy pilot for rubber tubes, there is a movable catch at the ends of the handles. When once the tracheal opening has been dilated and the dilator fixed at the proper width, the mere touch of a finger keeps it in position; this is valuable in such a short-handed operation as tracheotomy often is, allowing the operator to get a feather or tube and to introduce it with his right hand while the left holds the dilator—a somewhat troublesome business with the ordinary form, which is always trying to close; or, while the right hand holds the dilator, the tube may be introduced with the left hand, and the little finger will release the blades of the dilator. I know of no form of dilator much like this, though the principle is exactly the same as Mr. Walsham's, which is in Messrs. Arnold's catalogue.

Lincoln. E. MANSEL SYMPSON, M.B., B.C. Cantab.

THE INVALID'S "ODOURLESS" COMMODE.

THIS appears to be a valuable hygienic invention for the prevention of infection from the germs of zymotic diseases, and from the effects of the noxious gases which are so often unavoidably inhaled in sick-rooms after the use of the commodes at present in use. To the patients themselves, to nurses, doctors, and others having in any way to attend the sick, the advantages of the "Odourless" will, on inspection, be at once apparent. By simply pulling a handle, a sliding screen of air-tight material runs along prepared grooves, and instantaneously and hermetically seals the contents of the pan before the user rises from the seat of the commode. All infectious germs and foul fumes are thus confined therein and prevented from escaping into the sick-room. The inventor and patentee is Mr. Tyerman, 119, Algernon-road, Lewisham, S.E., and the manufacturers are Messrs. H. Rolfe and Co., 33, Snow-hill, London, E.C.

TWO FOUNTAIN PENS.

MUCH ingenuity has been expended in the attempt to produce a writing implement which shall minimise the labour of penmanship as well as economise the time consumed in the operation. Amongst the candidates for public favour which have been submitted to our approval are the Lacon fountain pen, and that introduced by Dr. Hommel. Each of these inventions possesses advantages, though neither of them can be said to be absolutely perfect. One distinguishing merit of Hommel's pen is the ease with which, when the ink in the reservoir has become exhausted, the store may be replenished. This result may be effected by simply turning one section of the stem upon the other. To maintain the supply of ink to the nib, however, a slight version in the opposite direction is required at repeated intervals. With the Lacon pen, which is of somewhat simpler construction, after the first filling, the supply of ink is maintained uninterruptedly, so that several sheets of note-paper may be covered without removing the arm from the desk. This instrument, indeed, is one of the best of the kind which has come under our notice, and, when furnished, as it is intended to be by the inventor, with a transparent barrel to make visible the condition of the reservoir, will be as satisfactory as can be desired. We have used the pen and can testify to its excellence. The inventor is the Rev. E. Lacon of Stockbridge, Hants.

THE LANCET.

LONDON: SATURDAY, NOVEMBER 23, 1889.

MISS FRANCES POWER COBBE'S letter to *The Times* on the defects of the Act providing for Notification of Infectious Diseases is not altogether unreasonable, and deserves a serious notice from ourselves. Miss COBBE raises no objection to the principle of the Act. Evidently she thinks it no true breach of personal liberty to forbid persons with infectious diseases to be at large and to convey them freely to other people. More than that, she approves heartily of the provision in the Poor Law Act that the hospitals of the Metropolitan Asylums shall be available, under proper regulations, for the purposes of medical instruction in infectious cases. But here her criticism begins. She argues that the said students will become purveyors of infection, and that this will lead to an indefinite extension of the diseases whose range it is the object of this legislation to curtail. Her fears do not stop at medical students. She wants to know whether a medical man ought to practise indiscriminately in infectious and non-infectious cases, or what interval should elapse before he sees fresh cases, and by what code of rules, drawn up by the Colleges of Physicians and Surgeons, medical men are to regulate their conduct and their clothes. There is just a touch of the grandmotherly element in such suggestions from so fresh and original a critic; but we take it all in good part, and as not at all unreasonable from Miss COBBE'S point of view. We hope the distinguished men who now preside over the respective Royal Colleges of Medicine in the different divisions of the kingdom will notice what is expected of them and of their colleagues, and we should think it no unreasonable or unprofitable occupation of the time of a committee of their bodies to advise and encourage their diplomats and associates in the use of all conceivable precautions against what we take to be a very rare event—the conveyance of infection in medical or surgical practice. Our own opinion on this question is very strong. We hold it to be binding on medical men not only to take pains, but to go to some excess of trouble, to avoid even the appearance of transmitting or conveying the germs of disease; and when the disease is a grave one, like small-pox or scarlet fever, or puerperal fever, we should esteem the practitioner very culpable who neglected any reasonable precaution. Such accidents of conveyance have occurred. Miss COBBE seems herself to have had an experience which may well excuse her for writing earnestly on the subject. Not very long ago we had to comment on the painful occurrence of six puerperal deaths in the practice of one midwife, though she was warned at almost every step by medical men to desist attending on parturient women. We do not, then, differ from Miss COBBE in opinion or in principle, nor do we yield to her in the conviction that it is the urgent duty of medical men to be on their guard against the evil and the risk she indicates. But we hope to satisfy all reasonable people that the notification of the patient is enough, and that that of the doctor would be superfluous. First, we must be practical in all our suggestions. There is a quarantine that is a greater evil than the plague it would prevent, and it would be very hard upon people with a non-infectious disease to forbid them the services of an able physician or surgeon, simply because the practitioner may have seen in the course of the same day other patients with infectious diseases. But Miss COBBE seems to think that medical men who attend infectious cases should be restricted to them alone. She wants to know, as we have said, whether a medical man ought to practise indiscriminately in infectious and non-infectious cases. If this principle were carried out, the public would be deprived of its best advisers; but the results would be still more absurd, for evidently the restriction would have to be more developed. The practitioner for measles would not have to attend a patient with scarlet fever, and the small-pox physician would have to avoid both those diseases. We beg to assure Miss COBBE that there is practically no need for such refinements. In the case of the students who are to be admitted to the infectious hospitals, we apprehend that every precaution will be taken in their interest and in that of the public to prevent infection, precautions such as are taken, and have been taken for years, in the case of visitors to the London Fever Hospital. It is not necessary for us to specify these here. Of course they will not always protect students. Medical students and medical men worthy of their profession must take its risks. But there need be practically no risk to the public. Miss COBBE will admit that it is to the medical profession that the public owe all the methods for preventing disease—vaccination, disinfection, and even notification. Medical men have not only their own strong sense of duty to impel them to the use of all reasonable precautions, including the diligent use of disinfectants, but they have the sense of interest. They have to consider themselves and their own families, and their own reputation, which is based on curing, and not on conveying disease. It is satisfactory to know that a most influential committee of the College of Physicians is actually considering this very question, in view of the recent legislation, and in conference with the managers of the metropolitan hospitals. Surely a profession so careful, so interested, and withal so credited with its work in preventive and disinfectant medicine deserves to be trusted by the public as it is trusted.

THE recent publication by the New Sydenham Society of the Pathological Lectures of the late Professor COHNHEIM serves to direct attention to the striking and original views of that vigorous thinker regarding many of the vexed questions of pathology. Foremost among these must be reckoned his theory of inflammation, the cardinal question around which so many of the problems of disease necessarily group themselves. Three theories of the inflammatory process have been at various times widely accepted: the neuro-humoral theory of CULLEN, HEINE, and BRÜCKE; the cellular theory of VIRCHOW; and the vascular theory of COHNHEIM. It may be of interest to once more glance at these three theories, at the evidence upon which they depend, and the difficulties

each has to surmount, may not be without instruction. It should be clearly understood that our difficulty in adopting any theory definitely and finally does not imply that we have not a very accurate and detailed knowledge of the various steps in inflammation. This we already possess, but we are unable to say with absolute certainty where the process begins, or upon what it in the first case depends.

The neuro-humoral theory gives the first suggested answer to these questions. It has two varieties—the *ischæmic* and the *paralytic*. According to the former, "it is to the contraction of the afferent arteries of a part, reflexly called forth by the excitation of sensory nerves, that the further circulatory disturbance depends." According to the *paralytic* version of the theory it is, on the contrary, "a reflex relaxation and dilatation of the arteries that occasion the inflammatory hyperæmia." To this theory COHNHEIM objects that narrowing of the vessels can produce only anæmia, or in extreme cases necrosis, not the peculiar phenomena of inflammation, and that active hyperæmia does not increase transudation or give rise to anything resembling the inflammatory tumour.

The cellular theory of VIRCHOW, which has long enjoyed such wide acceptance, teaches that the "genuine central point of the entire process must be sought in the tissue cells of the affected part. These are supposed to swell and enlarge on exposure to the inflammatory irritant and then to give birth to the new cells, the pus-corpuscles." To this theory it is objected by COHNHEIM that "it introduces into physiology a principle discovered *ad hoc*, and having no analogy elsewhere—viz., that of an attraction of the tissues or tissue cells on the vessels and their contents." It is also argued that there is good reason for believing that marked hyperæmia and considerable transudation are present before any change can be detected in the tissue cells. It is likely, however, that Professor VIRCHOW may have modified his views to some extent since the publication of the work of his distinguished pupil; and the forthcoming revised edition of his famous "Cellular Pathology" (which is to appear during the meeting of the International Medical Congress next year) will doubtless contain a discussion of the question in this new light.

If neither the nervous system nor the surrounding tissues be at fault in inflammation, there remains but one further possible theory—viz., that the process really begins in the vessels; and this is the vascular theory of COHNHEIM, which he supports with great force and clearness. He seeks to establish that the whole process may be explained "on the assumption of an alteration, a *molecular change*, of the vessel walls." The first step in the argument is to draw attention to the apparent anomaly that, while any injurious influence affecting the arteries causes a relaxation of the circular muscular coat, and hence a decrease of resistance to the blood-flow, yet, after a brief interval, the circulation in an inflamed area is considerably retarded, although the vessels remain dilated. One must, therefore, assume that the vessels have undergone some change which has increased the frictional resistance. COHNHEIM then proceeds to show ground for believing that neither the blood, the vaso-motor nerves, nor the surrounding tissues are primarily at fault. That the blood is not the peccant material is evident from the consideration that being in constant motion it is almost inconceivable that any change in it should be the origin of a local process like inflammation. Actual experiment also excludes this hypothesis, as it is found that if a ligature be applied to the root of a rabbit's ear, from the vessels of which all the blood has been previously removed by the injection of a solution of common salt, if now heat be applied to the vessels, and then the blood be allowed to re-enter, the entire phenomena of inflammation ensue. Here the blood, being *ex hypothesi* normal, cannot give rise to the process.

As against any vaso-motor theory, it is urged with much force that the most extreme vaso-motor disturbances may be set up by division of the sympathetic and otherwise, yet inflammation does not ensue. Again, all the usual effects may be produced by applying irritants to parts deprived of their connexion with the central nervous system. The tardiness of the various steps in the inflammatory process is a further argument against regarding them as due to nervous influence. That the surrounding tissues are not primarily at fault is argued from the difficulty of conceiving that any alteration in them could cause transudation of the solid constituents of the blood, and also from the absence of any positive evidence of such alterations.

Hence COHNHEIM argues that we are driven, *per exclusionem*, to regard the vessels as the starting-point of the process of inflammation, and believes that "we have to deal with a molecular change of the vessel walls, whose highest degree involves the death of the latter, but whose slighter degrees, on the other hand, call forth a certain typical series of abnormal events in connexion with the motion of the blood and the transudation. The sum total of these events, together with their consequences, have been for ages comprised under the notion and name of inflammation."

While we thus see three contending theories more or less ably supported, and more or less widely accepted, regarding the *rationale* of inflammation, we find, on the other hand, that from the dawn of medicine its distinguishing signs have been recognised and correctly described. The *rubor*, *tumor*, *dolor*, *calor*, and *functio læsa* of the earliest writers still constitute an accurate and succinct account of the signs and symptoms of inflammation. Here, as in so many of the departments of thought, it is the question of origin or starting-point that is the real difficulty. Whatever degree of acceptance the views of COHNHEIM may finally command, all will unite to recognise their brilliant originality, the force and moderation with which they are urged, and their adequacy to explain the facts in question. It is impossible too deeply to regret the loss to Germany, the world, and science involved in the death, at so early an age, of the distinguished pathologist whose views we have been considering.

WE have on various occasions felt compelled to enter our protest against attempts continually being made under one disguise or another to accomplish the impossible task of disseminating among the public the knowledge necessary for the diagnosis and treatment of disease. These protests may be regarded by the more unthinking section of the public as interested and prejudiced, but we feel sure that

all truly educated and reflective minds will recognise that in so doing we are seeking not to maintain any selfish professional privileges, but to guard the people from a grave public danger. It may not be without advantage to recapitulate the reasons which not only justify, but compel, such an attitude.

The most fundamental objection to the attempt to convey, through the medium of popular handbooks, pamphlets, or journals, a really serviceable acquaintance with the methods of dealing with disease is that such an attempt is predestined to the failure which awaits all efforts to accomplish the impossible. All rational therapeutics rests upon a correct estimate of the nature, extent, probable course, and threatened dangers of the morbid condition which we aim at combating—in other words, upon an accurate diagnosis; and accuracy in diagnosis can only be gained by the previous study of normal and abnormal function—physiology and pathology,—by the cultivation of the habit of precise observation, and by the storing up of the fruits of long experience. The human body is a machine of infinite complexity, its aberrations from the normal are innumerable and indefinitely variable, and conditions the most diverse may bear an aspect of delusive identity. We generally find that the wider the acquaintance with disease the greater the caution in prognosis and treatment. The young practitioner, fresh from his books, thinks he knows everything. His more experienced brother smiles, and expects with perfect assurance the rude awakening which awaits such premature self-confidence. If the newly qualified doctor, with his years of training and study and all the advantages afforded by the wide field of observation presented by our hospitals, soon finds his knowledge imperfect and his experience inadequate, what must be the case of the too confident mother or sister, who relies upon the experience gained in one or two cases of disease, or upon the knowledge hastily gleaned from some popular manual, to pilot a dear one through the rocks and shoals of prolonged sickness?

The second fundamental objection to the popular study and practice of medicine is that not only are they useless and impracticable, but nearly always, when put to the test, absolutely hurtful. POPE'S well-known maxim about the danger of a little knowledge certainly finds an application in the case of medical science. It has been argued in contravention of this usually accepted precept that, while a little knowledge is a dangerous thing, no knowledge is more dangerous still. This is "true in a false sense." The reason why a little knowledge is dangerous is not because it is little, but because such knowledge is often imperfect, and hence misleading. In some subjects a little knowledge may be accurate as far as it goes, and hence of real utility. In medicine, however, a superficial acquaintance with the facts is fatally sure to lead to the gravest errors in practice. Let us suppose the following case:—A member of a family suffers from dyspepsia attended by vomiting, consults a popular handbook which recommends bismuth, which drug is thereupon taken with immediate relief. Some time after another member of the family is seized by vomiting; the same drug is taken and persevered in for some time without benefit, a medical man is called in who discovers a strangulated hernia or a depressed fracture of the skull. Or take another case which the experience of every surgeon can corroborate. A person falls down and "sprains his ankle." The popular guide is consulted, various remedies are tried without effect, at length the surgeon is called in and discovers advanced periostitis of the tibia, perhaps necessitating amputation. Such cases, which could easily be multiplied *ad infinitum*, are constantly occurring, valuable lives being frequently sacrificed in consequence of the time lost in that popular practice of physic so dear to some minds.

While we think the above facts amply justify the grave suspicion with which the profession as a whole regards a certain class of literature, unhappily on the increase, we are by no means advocates of maintaining any mediæval secrecy regarding the human body, its maladies and their treatment. It can hardly be doubted that a wider dissemination of the fundamental teachings of physiology would be an almost unmixed boon, and such practical instruction as that given by the St. John Ambulance Association regarding the course to be pursued in cases of sudden emergency has, whilst kept within legitimate bounds, our hearty approval. But the public must learn that the diagnosis of disease must inevitably remain the work of a specially trained and experienced class, and that household remedies and the precepts of popular handbooks, however innocuous in cases of trivial ailments, are a fatal snare in grappling with serious disease. It would be a real gain to society if the knowledge possessed by the trained nurse were made part of the education of every accomplished woman. Such knowledge would be worth a score of the "ologies" in many a dark hour of domestic sorrow, but then the nurse follows and does not lead, she obeys but does not command. She takes her estimate of the case and the general line of treatment to be pursued from the physician or surgeon, and is as invaluable in executing commands as she would be mischievous if permitted to originate them.

Those who know the whole facts of the case best will be the last to suggest that we discourage the popularising of medicine because it might tend to diminish professional incomes. The domestic empiric and the vendors and patrons of quack medicines are unconsciously the means of creating much professional work.

Annotations.

"Ne quid nimis."

THE PORT OF LONDON.

THE half-yearly report of the Sanitary Committee of the Port of London relating to the proceedings taken during the first six months of the year has been recently issued by Dr. W. Collingridge, the port medical officer. During the period in question 9713 vessels were visited, and in 2·9 per cent. orders as to cleansing were given and complied with. Of the total vessels arriving in the port 88·3 per cent. were British, the Germans and Scandinavians taking the next place with 4·1 and 4·0 per cent. respectively. An account is given of the cases of infectious disease on vessels during the period in question. The number of such was very small, and in most respects the arrangements available by the port sanitary authority are of an extremely satisfactory nature. Indeed, they are such that Dr. Collingridge is able to report that they are put into force without any delay or detention on the part of the

authority. The port officers at once remove the sick on the notification being given off Gravesend, and the vessels are fumigated on their way up the river, so as to avoid, if possible, even the loss of a single tide. But there is, unfortunately, one flaw in connexion with the arrangements for isolation, and it is of a sort that may at any moment bring about serious consequences. We refer to the absence of any separate building in which to isolate small-pox; and Dr. Collingridge, knowing well what this means, has not failed to urge that the want should be supplied. Hitherto his suggestions seem to have been met by complimentary language as to the valuable nature of his reports, and there the matter has ended. Again and again it has happened, under similar circumstances, that a sanitary authority has found itself compelled to receive into its hospital, already containing other patients, a single case of small-pox; and though professing to do isolation work, it has found itself distributing disease to other sick persons, and this by reason of the lack of means properly to perform its duties as an isolation authority. We hope the London port sanitary authority, the labours and work of which are in so many respects a pattern of excellence, may be spared the humiliation of having to face such a misfortune as we have referred to. But if so, the recommendation of its medical officer of health must be acted on by the Corporation. The lack of adequate means of isolation for the training-ships *Shaftesbury* and *Arethusa* are also adverted to in the report.

THE ROYAL HOSPITAL FOR DISEASES OF THE CHEST.

THE unfortunate circumstances which have led to the resignation of their secretary, at the request of the Council of the Royal Hospital for Diseases of the Chest, and which have caused a prolonged period of anxiety and trouble to the true friends of that institution, are succinctly set forth in a "statement" drawn up by the Council for presentation to the governors, who are summoned to attend a special meeting, to be held at the Cannon-street Hotel on the 29th inst. This "statement" gives a historical sketch of all that has transpired with reference to the matter since, in February last, the Council appointed a committee to investigate certain charges brought against the late secretary, "it having been reported to them that his action had in certain particulars been such as seriously to affect the interests of the hospital." The secretary, in his written defence, brought grave charges against the medical staff, asserting that he had "thought it his duty to watch carefully the increasing tendency to make the hospital less a hospital for consumption for the treatment of poor patients recommended by subscribers, than a school for the education of the doctors." In support of this assertion he cited the large number of "emergency cases" admitted, and singled out two cases in particular—one of tracheotomy, and the other of the treatment of aneurysm by wire, not, he adds, "as in any way pretending to offer an opinion as to the medical treatment of patients in the hospital, but as being anxious to maintain its reputation as an institution founded for the benefit of the poor of the neighbourhood, and supported mainly by local subscribers, employers, and working men." On the committee reporting to the Council, a resolution was moved to the effect that the secretary should be called upon to resign; but this extreme course was waived by the carrying of an amendment to the effect that he be censured. Naturally the medical staff could not rest under the imputations contained in the secretary's statement, and they promptly sent in their resignations, and demanded an inquiry into the charges, a step which was approved by the consulting surgeon, Mr. Jonathan Hutchinson, when the matter came to his knowledge. A special meeting of the Council was held on June 27th, when, after hearing a categorical and detailed explanation from Dr. Hensley on behalf of the medical staff, the Council unanimously decided to call upon the secretary to resign, and requested, at the same time, the medical officers to withdraw their resignations. It might have been thought that the matter would have ended here; but on the occasion of a special meeting of the governors on Oct. 7th Mr. Austin repeated his declaration that the hospital was being made a school for doctors rather than an institution for the poor, and a resolution was carried by 57 votes to 22 asking the Council to reconsider their decision. This the Council declined to do, and the meeting to be held next week has been called by requisition to consider the reply of the Council and to take steps to secure the "peacable and orderly working of the institution in the future." There can be little doubt how the governors as a body will regard the question, which involves the credit of the institution. Had the Council been less considerate in their dealings with their late secretary things might not have come to this pass, and it must further be observed that the action ultimately taken by the Council is the ostensible reason for the requisition for a special meeting. Nevertheless the late secretary impugned the discretion and judgment of the medical officers, and although he no doubt acted in the first instance from sincere motives, his conduct in persisting in his allegations after they had been thoroughly disproved cannot be justified on any ground. The specific instances he cited were so utterly frivolous that they are not worth considering; they are dealt with thoroughly in the reply of the staff, whilst there is absolutely no foundation for his general allegation of a perversion of the main objects of the institution. The public, naturally jealous of the administration of our charities, have been misled in this particular instance, as anyone who carefully peruses this statement can see. That the charges (which have never been withdrawn) were entitled to gain sympathy is also natural; but now that they have been shown to be baseless, the sympathy should flow in the opposite direction. The medical officers, at any rate, have had the interests of the institution at heart, and have fulfilled the objects for which it was founded. Upon them depends its reputation, and even those who have been most active in this business cannot find fault with the manner in which they have performed their duties.

BIRTH-RATES AND DEATH-RATES IN LONDON AND IN PARIS.

IT appears from the Registrar-General's Annual Summary that during last year the birth-rate was 30·7 per 1000 in London and only 27·0 in Paris; while, on the other hand, the death-rate was only 18·5 per 1000 in London, whereas it was 22·6 in Paris. On the strength of these facts a medical correspondent in an evening contemporary asserts that "if London had as low a birth-rate as Paris, its death-rate would probably fall to 15 or 14 per 1000." Here we have an example of the continual resurrection of the oft-exposed fallacy that high birth-rates cause high death-rates, and its corollary that a reduction in the birth-rate causes a similar reduction in the death-rate. It is true that a sudden increase in the birth-rate of a population, if such could occur without an alteration in the age distribution of the population, would raise the death-rate, in consequence of the excessive mortality that prevails among infants during the first few years of life. A high birth-rate, however, necessarily infers, in addition to a large proportion of infants, not only a large proportion of children and young adults when the rate of mortality is constantly low, but also a relatively small proportion of elderly persons, among whom the rate of mor-

tality exceeds that which prevails among children under the age of five years. Thus the effect upon the mortality of the increase in the number of young children is more than balanced; and it follows that the age distribution of populations in which high birth-rates prevail is much more favourable to the uncorrected death-rate at all ages than is the age distribution of populations having low birth-rates. Thus part of the excess in the Paris death-rate is due to the unfavourable age distribution of its population, resulting from the low birth-rate that prevails in Paris and France. If the London birth-rate were to fall to the Paris level, and so continue for a series of years, the result would be not a reduction, but an increase in the London death-rate. This inevitable result would ensue because the decrease in young children would, in its effect upon the death-rate, be more than balanced by the reduction in the proportion of children and young adults at ages when the mortality is low, and by the increase in the proportion of persons living at ages when the mortality is high.

THE PATHOLOGICAL EFFECTS OF CHLOROFORM INHALATION.

THE question, especially interesting at this juncture, whether the inhalation of chloroform produces any remote effects upon the organism is most thoroughly studied by Dr. Robert Ostertag in a paper based on researches carried on in the Berlin Pathological Institute (Virchow's *Archiv*, cxviii., 2). The subject is introduced with the remark that it is doubtful if chloroform would have gained so ready an acceptance in medicine as it did had the knowledge of its fatal action upon animals been known at the time of its introduction. Fröhner stated that cats are highly susceptible to it, dying from respiratory paralysis; and that rabbits are even more susceptible than cats. There was, to be sure, some opposition to its use on the ground of its dangers, but it was pointed out that sudden deaths during operations were not unknown in pre-chloroform periods. Moreover, experience has shown how variable are the risks run by this anæsthetic, and figures are quoted in illustration. Thus Sansom places the chloroform mortality at 1 in 14,000, and Richardson at 1 in 3500. According to Kappeler, Billroth had 12,500 cases before his first fatality, Kœnig 7000 without a death, Kappeler himself 5000 cases and one death. Bardeleben from 1849 to 1875 had 30,000 cases without one fatality, but in 1876 he lost four patients from chloroform. The dangers of chloroform are not, however, limited to deaths during inhalation. Caspar pointed out that there is a "chronic chloroform poisoning," and gives a case of amputation of the thigh in which the patient died nine days after with cerebral symptoms attributed to the chloroform. Von Langenbeck lost a case seventeen hours after excision of the scapula, the symptoms being loss of consciousness, vomiting, and collapse, these being seemingly attributable to the chloroform. And Berend mentions cases fatal at from three-quarters of an hour to sixty hours after operation. Experiments on the effects of chloroformisation made by Ungar and confirmed by Strassmann, showed fatty changes in many organs (including the heart) without, however, appreciable change in the blood. The author's own experiments were of wide range. They consisted for the most part in the daily repetition for several days of chloroform narcosis for an hour or so in various animals, as rabbits, guinea-pigs, rats, pigeons, cats, and dogs; and the general result was to show the production of widespread fatty degeneration, sometimes jaundice, and other evidence of blood destruction. The application of these results to the human subject is, however, difficult. In some cases, to be sure, icterus has followed prolonged chloroformisation; and in many fatal cases fatty degeneration of the heart has been found, obviously, however (in the acute cases), pre-existent to the narcosis; still, in cases dying some time after the administration of chloroform, such degeneration may have been due to this agent. Again, so many other factors connected with operations—shock, sepsis, &c.,—may operate in producing a fatal result, that it is often impossible to attribute this to the chloroformisation. That many individuals tolerate it well is shown by records of prolonged and repeated chloroformisation as a means of treatment—e.g., in tetanus, chorea, &c., without any subsequent ill-effects. Nevertheless, the results of animal experimentation are sufficient to justify the non-employment of chloroform anæsthesia in long operations. At the close of his lengthy paper Dr. Ostertag sums up his conclusions as follows:—1. That after long-continued inhalation of chloroform by different animals there may arise fatty degeneration of organs, especially fatty infiltration of the liver, fatty metamorphosis of the cardiac and skeletal muscles, kidneys, and stomach. 2. These fatty changes result from the action of chloroform upon the blood (destruction of red corpuscles) and upon the tissue cells. 3. Some individuals have a greater susceptibility to this action of chloroform than others, and succumb at an earlier period to its effects. 4. The fatal effect is due to cardiac paralysis, which may occasionally be accompanied by but slight anatomical lesion of the myocardium, and also to gradual carbonisation of the blood.

THE BRITISH NURSES' ASSOCIATION.

THE publication of the first annual report of the British Nurses' Association will have, it may be hoped, the effect of bringing more clearly than heretofore before the public mind the aims and claims of this new society. These, no doubt, are perfectly well comprehended already by such as have been at the pains to inquire into them, but the movement is too young for its programme to be as yet fully "understanded of the people." It is well, then, that the objects of the Association should be distinctly and repeatedly stated, and not only its ultimate aim of raising the efficiency and status of the trained nurse, but also the more immediate objects which engage the attention of the members at the present moment, and serve as means to these desirable ends. The work to which the Council proposes to address itself during the coming year comprises (1) the formation of registers of nurses and midwives, (2) the formation of a Benevolent Fund, and (3) the establishment of one or more holiday houses, as funds allow. Of these objects the most pressing and withal the most difficult is undoubtedly the formation of a register. The magnitude of such an undertaking would probably be considered sufficient in any country except Great Britain to put it altogether beyond the compass of private hands or a voluntary association. But among ourselves the very largest enterprises have been happily inaugurated by private effort, and the State has habitually declined to undertake such a task as that of regulating and controlling a profession until the problems which it presents have been practically solved. So it will doubtless be with the British Nurses' Association. The advantage of a diploma from a central society will gradually make itself felt, and the more readily because it may be hoped that the foremost schools of nurses will be prepared to take their part in organising and maintaining the central institution. When once the public have learnt to look for such a testimonial of membership as the Association implies, the influence thence accruing to the society will enable it to erect and maintain such a standard of efficiency among nurses as shall discourage unfit persons from seeking to practise in this department. Professor Humphry, in submitting the Council's report to

the annual meeting, alluded to the time within his own experience when "those who had gone through the active part of life were thought proper persons to undertake the duties of nursing," and he was able to contrast with that state of things the improved efficiency of trained nurses at the present day, when the "flower of womanhood" is engaged in this service. This great and most beneficent change has been brought about chiefly by the spontaneous action of the nursing schools, and serves to show how much can be done by unofficial effort. But the great schools do not and cannot supply the whole demand for nurses, and many women adopt the profession without any adequate training or qualifications. A better certificate than that which the great nursing schools already furnish it would not be easy to devise; but unfortunately the general public cannot distinguish between a woman whose training has been sound and effective and another whose designation of "trained nurse" is a mere figment of the imagination. This is the evil which cries aloud for such a remedy as the British Nurses' Association has been formed to supply, and we are glad to gather from the excellent report which has been made public that it has embarked on its great task not only with excellent spirit, but also with the most promising prospect of success. It will have been noticed from the statement published in our last issue (page 1029) that the Association has wisely extended an invitation to every training school for nurses and midwives in the United Kingdom to appoint a representative upon the proposed Registration Council.

INVALIDS AND THE SALVATION ARMY.

IF all that has been done in the name of religion were compared with what in some form or other most of us recognise as its guiding principles, there would often appear to be a lamentable discordance between the two. Excellent in itself, the element of spirituality has in many cases lost as much as it has gained from its alliance with human enthusiasm. The former abounds in mutual considerateness, the latter too often pushes forward the rough-and-ready methods of self-pretension, and seeks with them to carry all before it. This is true of deeper currents and of surface movements. It is true of many church methods, and it is true also of a great deal that is done by such bodies as the Salvation Army. However genuine, however useful the purpose of these organisations, it is not surprising that their *ad captandum* practices have been found at times to be a public nuisance. Anyone accustomed to the noisy parades of the Salvationists, especially on Sunday, will understand that the lives of dwellers near open spaces or main thoroughfares are not, even on the day of rest, so quiet as they might choose. Even persons in good health may not always find the throb of drums and the strains of a brass band, with other accompaniments, conducive either to rest or devotion. Invalids, again, must often have felt themselves ill-used in being made by the mere circumstance of position a restless and unconsidered part of the audience at these musical manœuvres. In their interest a protest is occasionally necessary, and the members of the Army, it must be admitted, have shown themselves not unreasonable towards applications of this kind. As regards the question of permission or suppression of such performances, we do not know of any action which can be taken so long as the right of thoroughfares is respected unless it be inspired by a complaint on the part of adjacent householders. Where it is felt that the proceedings of these bands constitute a nuisance this power of complaint is available. In cases of sickness where it is necessary to obtain as far as possible quiet out of doors, the power of veto, which rests with the householder, may and should be freely used.

INSANITARY DWELLINGS.

PRIVATE INDIVIDUALS are discovering that they can make independent application to a magistrate for the abatemen of nuisance, and that they need not wait for the action the local authority to undertake this duty. Thus, Mr. Bennet Burleigh, of the *Daily Telegraph*, has obtained an order from Mr. Montagu Williams for the closing of certain houses in Shoreditch, which, on inspection, the magistrate found to be unfit for human habitation. The supercession of local sanitary authorities by the Mansion House Council and private persons is calculated to stimulate the action of those upon whom this duty really devolves. The Bethnal-green vestry, who some two years ago were roused by a Home Office inquiry, have now taken out summonses against the owners of some fifty houses, and there is every appearance that a more serious effort is being made to improve the condition of a number of the streets in that parish. Bethnal-green, it was shown by the report issued as the result of the inquiry, is suffering from arrears of sanitary negligence. The vestry have been well advised by an able medical officer of health, who has urged upon them the necessity for dealing with many of these houses under the Artisans and Labourers' Dwellings Act, but the vestry declined to put that law in force, and one of the most useful Acts in the Statute-book became a dead letter. In districts where the medical officer has been appointed since April 1st of the present year, copies of reports under this Act are sent to the London County Council, who, in default of proceedings by the local authorities, can themselves carry out the law. It may be expected that gradually this system will extend over the whole of London, and we may then anticipate that medical officers' reports will no longer be set aside.

DR. GUIDO BACCELLI.

THE President of the Accademia Medica di Roma and Professor of Clinical Medicine at the Sapienza has just been elected to the post of municipal councillor by a majority far exceeding that of any other of his colleagues. The public services of Dr. Baccelli, both in Parliament as Minister of Public Instruction and in the Roman municipality as leading member, have won him the confidence and support of the party of progress throughout Italy, and have given him in the Italian Chamber, as in Italian public life, a position similar to that long held by Professor Virchow in Germany. There is hardly an interest which Italians cherish on which he has not left the mark of his cultured appreciation and his public spirit. The architectural renovation of Rome, unfortunately marred, for the time at least, by over-haste, owes much of its redeeming character to his intervention—primarily, of course, in the all-essential feature of sanitation, and secondarily in such projects as that of the "Passeggiata Archeologica," or archæological promenade, to preserve and make accessible for the foreign visitor those ruins and relics of the past from which Rome derives her perennial attraction. These and many similar considerations account for the enthusiasm with which the latest of Dr. Baccelli's public successes has been hailed in the capital and the country as of good augury for the best interests of both. Among the demonstrations in which that enthusiasm culminated, the deputation, composed mainly of his own students and those of the other faculties of the Roman University, reinforced by many of the leading citizens, must have been the most gratifying, from its spontaneous origin and from the almost filial thought which inspired the bestowal of its congratulations on him in his own house. Sixty associations of different orders and interests, scientific, literary, artistic, and commercial, throughout the city, have also combined to present

him with an *album d'onore* as a permanent acknowledgment of the admiration and gratitude embodied in the following address: "To Guido Baccelli,—The general administrative elections having been brought to an end in circumstances of extreme gravity for the economic interests of the commune and of the citizens, the undersigned associations, mindful of your constant promotion, through useful works, of the civic prosperity and rehabilitation of Rome, are confident that the voice of the electors and of the renewed municipal representatives will induce you to devote all your influence in behalf of the city, and they cherish the hope that your policy of enhancing the good government of the commune and the welfare of the public will obtain in the Capitol a consummation worthy of the Roman name."

SENSATIONAL EXHIBITIONS.

THE recent accident by which a female gymnast met with serious injury revives once more the question constantly suggested by acrobatic performances, whether nothing more can be done to minimise the risk of such occurrences? Adults cannot, as if they were children, be prohibited from performing by reference to any such convenient standard as that of age. They and their supporters can best judge of their fitness for the tasks which they undertake. The sight-seeing public, on the other hand, can hardly be blamed if they believe the substance of reports which are blazoned on every wall and hoarding, and encourage by witnessing a spectacle in which practice is declared to have given a facility difficult and remarkable indeed, but conceivably possible. The preventive action of law in the like circumstances would be a proceeding of debateable expediency unless it could be shown that the feat attempted was essentially hazardous in spite of technical training, or that the acrobat was manifestly incapable. As matters now stand the most obvious potential remedy in the case already referred to is that which was, we may conclude for the sake of scenic effect, entirely absent—namely, the net commonly extended below the performer. Had it been used in this case the injuries sustained would certainly have been considerably less than they were. The performance itself would not have been the less remarkable. It would probably have been carried out with greater confidence and precision, and the spectators would likewise have been better satisfied and quite as appreciative. No great good comes of these displays of muscular mobility, but if safety be provided for they are of course permissible, and while they pay they will continue. It should be remembered, however, by all concerned that the thinking part of the public in this country at least respects life and limb too highly to value exhibitions which render the performer a mere suicidal devotee.

HÆMOPHILIA.

DR. FISCHER of Munich describes in his inaugural graduation thesis a large family all the members of which had suffered more or less from hæmophilia. The family was very prolific, the members living to various ages. One child died at nine months, one man at sixty-two years, and two others at sixty-seven are still alive. The proportion of females to males is four to thirteen. The bleeding takes place chiefly from the nose and gums, and the loss from these parts is very heavy; but bleeding from the internal organs is rare. The author, having found that in patients suffering from hæmophilia the proportion of red blood-corpuscles to leucocytes is 1500 to 1, believes that the disease consists essentially in an alteration in the quality of the blood as well as of its quantity. He considers the disease to be caused by increased activity of the blood-making organs and their increased capacity for forming red blood-corpuscles. On this theory it is, as the author shows, possible to explain most of the symptoms of hæmophilia. Latency and paroxysms are the different stages of the disease. The alteration of the blood is naturally followed by an alteration in the functional activity of the various tissues. Hyperæsthesia of the whole nervous system and of some centres in particular, and an alteration in the elasticity and contractility of the bloodvessels, and in the density and firmness of their walls, are observed. Functional hypertrophy may arise from the increased resistance of the heart, the quantity of the blood being also abnormal. The author considers the frequent rheumatism and neuralgic symptoms in the bones and joints as equivalent to hæmophilous bleeding. Both serve the purpose of eliminating superabundant blood.

THE PRACTICE OF MASSAGE IN HUNGARY.

A QUESTION regarding the right of a certain masseur to undertake cases on his own responsibility at the Hercules Baths having come before the Hungarian Sanitary Council, the matter was fully considered and was made the subject of a minute referring not to the case in point only, but to the general question of non-medical persons practising massage. The minute states that it is contrary to the public interest to allow a person without medical qualification or supervision to practise massage or to give a licence for the purpose. The Sanitary Council bases this decision on the important part massage plays in general medical treatment, a brief account of its history being given. When, says the minute, massage was only practised by individual quacks it could certainly not be said to have formed any part of general medical treatment. Now, however, in consequence of the experimental and scientific basis on which it has been placed during the last decade, and of its regular administration and its value in prognosis, as well as in consideration of the results gained by this new treatment, it takes a high rank amongst remedial measures. In exceptional cases only would it be safe for a layman to practise massage; in certain rheumatic affections, for instance, he could do no worse than cause some slight extravasations of blood. In other cases of disease, however, a person without any knowledge of anatomy, physiology, or pathology, who could not make any proper diagnosis, might do considerable mischief. The public does not distinguish; it would consider only who has a licence to practise, not as a help to the physician, but as an independent specialist, who can not only practise massage, but medicine in general.

JURYMEN'S MEALS.

NOTWITHSTANDING the respect which is generally felt for the method of trial by jury, there is perhaps no honour which is less esteemed by individuals than that of exercising its duties. Twelve men may be good and true, and yet feel some regret at the frequently long duration of their enforced absence from business in order to attend in court. When to this is added from time to time the further hardship of being locked up without a prospect of necessary refreshment in order to consider a debated verdict, the position of even the unpatriotic juryman excites our sympathy. Is there no way out of this latter difficulty? In these days of police efficiency it is incredible that a body of men engaged in discharging an anxious public duty should not be allowed the ordinary privilege of taking food lest some chance collusion with the outer world should warp their judgment. Both in the interest of justice and of human frailty, some relaxation in the antique rigidity of law with reference to this matter is clearly called for. A hungry man may be innately just; nay more, he may by dint of patience persevere in an attitude of calm fairness in spite of his hunger. Most people, however, are

not thus judicially perfect. If hungry they become proverbially angry, and the irritated mind is never the most just. There can be very little doubt, therefore, that a reasonable concern for natural wants, far from corrupting, would enhance the truth, as well as greatly expedite the facility of jury findings. If, then, it should be needful in any given case to imprison together for a time the twelve selected citizens, we earnestly hope that it may be found permissible to lock in along with them a due allowance of needful refreshment.

THE COAGULATION QUESTION.

THE *Journal of Physiology* (vol. x., No. 5) contains the last paper written by the late Dr. Wooldridge, whose "untimely death," says Professor Michael Foster in a prefatory note, has robbed physiology "of a bright and enthusiastic inquirer." The subject is the one in which this gifted young physiologist made his greatest discoveries, and the matter of the paper is wholly controversial. For it consists of a reply to adverse criticisms passed upon his (Wooldridge's) observations by Dr. Halliburton, in communications to the Royal Society and the *Journal of Physiology*, upon the coagulation question. Dr. Halliburton there declares that the febrin ferment is a cell-globulin, and demurs to the remarkable point made by Dr. Wooldridge that intravascular clotting depends on "tissue fibrinogens," at first explaining this clotting on the purely mechanical ground of obstruction of the vessels by the slimy solutions of these substances—a view, however, which he subsequently withdrew. Dr. Wooldridge points out certain inconsistencies in Dr. Halliburton's statements respecting the body A-fibrinogen obtained from peptone-plasma free from ferment and corpuscles, and removed from the plasma by magnesium sulphate. He also criticises Dr. Halliburton's observations, and shows that his own (Wooldridge's) statement as to the absence of ferment from fresh leucocytes accords with Rauschenbach's observations, and not with the view taken by Dr. Halliburton that leucocytes contain a very powerful ferment. Dr. Wooldridge does not deny that under destructive processes leucocytes may yield such a ferment, but he disputes the assumption that in the living state they contain it, and that its liberation from them causes extravascular clotting; a view in which Dr. Halliburton practically restates the now untenable theory of Schmidt, and leaves the subject "in the hopeless mist in which it has been for the last twenty years." Finally Dr. Wooldridge avers that Dr. Halliburton gives no proofs of his assertion that leucocytes contain or yield ferment.

PROSECUTION OF A HEALTH OFFICER.

IT is not often that a medical officer of health is accused of an infringement of the Sanitary Acts, and when the officer in question is well-known to be a distinguished and zealous official, the circumstances under which the accusation came to be made against him become matter of special interest. Mr. H. E. Armstrong, the medical officer of health for Newcastle-on-Tyne, has done wisely in publishing the shorthand notes of his own case, which terminated in his favour last week. Mr. Armstrong had been staying with his wife and children in a small country town. On Saturday, August 11th, one of his children was found to be suffering from scarlatina, and was removed to the hospital for infectious diseases; two days later his wife had slight sore-throat, but no other symptoms of scarlatina, and the family returned to their home in Newcastle, travelling by an omnibus and by train. The day after their return Mrs. Armstrong developed other symptoms of scarlatina, and was removed to the same hospital as her daughter. It will be perfectly obvious to everyone that no charge of wilful exposure could be maintained, and it will be further obvious that there were no grounds for suspecting that Mr. Armstrong wished to avoid sending his wife to the hospital, seeing that immediately her affection was diagnosed she was removed there, and that this was the same institution to which she would have been removed had her malady been recognised in the first instance. After hearing the evidence in support of the summons, the magistrates dismissed the case without calling any of Mr. Armstrong's witnesses. It is clear to anyone reading the evidence that the accusation ought never to have been made, and we can only regret that the machinery of a sanitary authority was allowed thus to be used for the annoyance of an able and energetic officer.

MR. HUXLEY ON PHYSIOLOGY AS A GUIDE IN THERAPEUTICS.

WE must leave Mr. Huxley and Mr. Herbert Spencer to settle their differences over the knotty question of "absolute political ethics." But we cannot forbear noticing one incidental point that has emerged out of their controversy in *The Times*—the value of physiology as a guide in therapeutics. Mr. Spencer, in one of his letters, compared Mr. Huxley's objections to his "social ideals" and abstract political principles, to the objections that might be raised by a practitioner of the Sangrado type to a modern practitioner whom Mr. Spencer supposes to "treat his patients by deduction from physiological principles" rather than by careful induction from the observed phenomena of disease and of the effects of medicine. Mr. Huxley's reply is valuable:—

"Well, all I can say is, Heaven forbid that I should ever fall into that practitioner's hands; and if I thought any writings of mine could afford the smallest pretext for the amount of manslaughter of which that man should be guilty, I should be grieved indeed. Whenever physiology (including pathology), pharmacy, and hygiene are perfect sciences, I have no doubt that the practice of medicine will be deducible from the first principles of these sciences. That happy day has not arrived yet, and I fancy it is not likely to arrive for some time; but until it comes, no practitioner who is sensible of the profound responsibility which attaches to his office, or, I may say, is sane, will dream of treating cholera or small-pox by deduction from such mere physiological principles as are at present well established."

SANITATION IN STAFFORDSHIRE.

THE *Birmingham Daily Gazette* has been doing good service in denouncing the bad sanitary arrangements in Staffordshire. Much that is published by this local organ confirms what was stated in our Special Commission Reports on Sweating in the Black Country, and on the Nail and Chain Makers of the Cradley Heath District. We complained that cesspools were badly constructed, leaked, contaminated the surrounding soil, and that people drank water from wells situated close by. Our daily contemporary in its leading article on the subject, says:—"Closets are permitted to discharge into cesspools so vilely constructed that the whole of the surrounding soil becomes permeated with their nauseous contents, and water is drawn for daily use from wells that are supplied by springs saturated with this accumulated excrement." We hinted that many evils could be removed if the local authorities encouraged their medical officers of health to apply the law rigorously. The Birmingham paper describes the premises of a member of a local board; relates how he has been prosecuted on account of their insanitary condition, that he is still a member of the board, and yet, according to the

surveyor's report, his place of business is in as bad a condition as in the past. The medical officer of health, in his report, complains that his recommendations have met with no attention. The only hope seems to be in the new County Council, which may be able to combat the supineness of the older local boards. Thus, and in no measured terms, but in the strongest language, does the local press, after due inquiry and investigation, confirm the grievances we brought forward in the spring of the year. We trust that the wide publicity given to these grave matters will bring about the desired improvements.

ANOTHER MUNIFICENT GIFT.

LAST week we announced the offering as a free gift by Sir Sydney Waterlow, Bart., of his Highgate estate to be laid out as a public park for the north of London. This example promises to develop into a pleasing epidemic of beneficence, for this week it is our congenial task to chronicle the donation by Sir Edward Guinness of the large sum of £250,000, to be expended in the erection of clean and healthy dwellings for the poorest of the labouring population. Sir Edward Guinness has accordingly placed in the hands of Lord Rowton, Mr. Ritchie, President of the Local Government Board, and Mr. Plunket, First Commissioner of Works, a quarter of a million sterling, to be held by them in trust for the erection of the said dwellings; of this amount £200,000 will be expended in London and £50,000 in Dublin. The income derived from the rents of the houses is to be reinvested, with a view to the further development of the scheme. It now only remains to see that this princely gift really reaches the class for which it is intended—viz., in the words of the generous donor, "the people somewhat poorer than those who at present avail themselves of the existing artisans' dwellings," and who are "probably more highly rented, and certainly more badly housed, than any other class in the community."

FALSE CHARGES AGAINST VACCINATION.

A CASE recently occurred at Upholland, a little village about four miles from Wigan, in which the mother alleged that the child, nearly twelve months old, had never been well since it was vaccinated, and that it had a "vaccination rash" on its body. Although she lived near to the medical man who had performed the operation, she could not take it to him or send for him. She sent it occasionally to a neighbouring practitioner. When it got suddenly worse, medical aid was not available till too late. No certificate of death being forthcoming, Mr. Brighouse, county coroner, held an inquiry, and as the medical witness could not tell the exact cause of death without a post-mortem, he directed Mr. Johnstone to make one. The examination revealed that the child died from pneumonia, and that the rash or scabs on his head were due to want of proper care and cleanliness and not to vaccination. It is no uncommon thing for medical men nowadays to hear nearly all the ills that children suffer from attributed to vaccination. It is well, therefore, in such cases as this one, that a proper investigation should be held, and the facts plainly put before the public.

GUMMED ENVELOPES.

IT may perhaps appear somewhat punctilious to remark upon the gumming of an envelope, yet the matter is not too trivial for correction, and therefore merits a word of comment. We have now before us two such defective envelopes. In each of these a substance resembling wool is embalmed in the gum of the adhesive surface. It is exactly as if the still moist and sticky paper had been laid on some woollen material, and some such occurrence or the use of a dirty gum-bottle will probably explain the flaw in question. The subject deserves a little consideration on the part of those who supply one of our commonest wants. Most of us who write frequently moisten some at least of these gummed edges with the tongue, and we must all admit that such a proceeding gains no advantage from the uncleanliness with which we are then liable to be brought into contact. Clean gum solution and ordinary care in using it would prevent all such contamination.

THE GENERAL MEDICAL COUNCIL.

THE business to be brought before the General Medical Council at its session which begins on Tuesday next will, we believe, include the introduction of Dr. Church and Dr. Donald MacAlister as successors to Dr. Chambers and Dr. Humphry; the results of examinations for commissions in the medical departments of the army and navy; two penal cases of possible erasures from the Medical Register; four applications for restoration to the Medical Register; an application from Victoria University for the recognition of its diplomas in Sanitary Science; communications in regard to the registration of midwives, with a notice of motion thereon; a report in regard to the penal powers of the General Council; a report on the limitation of the expenses connected with the General Council's session; a report in regard to the results of the inspection of examinations; and a summary presented for discussion by the Examination Committee of inspectors' reports. It will be seen, therefore, that the meeting is likely to be an important one, as the educational questions to be brought forward are of considerable urgency.

FALSIFICATION OF WINE IN BRAZIL.

IT appears from a small pamphlet enclosed in a letter addressed to us by Dr. Campos da Paz of Rio de Janeiro that the manufacture of spurious imitations of wines and liqueurs flourishes unchecked in Rio and forms a more or less important industry. The replies, based on analyses, which were returned by the local official chemists to inquiries submitted by Dr. Campos da Paz and Dr. Freire show that extensive and systematic falsification of a kind likely to be seriously injurious to public health is practised. Indigo-carmine, dinitro-cresylate of potassium, aloes, chloroform, and the compound ethers of valeric, butyric, and caproic acids, oxalic acid, and amyl alcohol are among the ingredients used in this branch of vilely, if cleverly, misapplied chemistry. Such a development of native industry should be put down by the strong hand, and we cordially wish success to our *confrère* in his efforts to repress it.

A POST-GRADUATE COURSE FOR LONDON.

WE have received a copy of the prospectus of the "London Post-graduate Course," which has been established under the presidency of Mr. Jonathan Hutchinson, F.R.S., President of the Royal College of Surgeons. It has been decided to institute these courses of instruction, open to qualified members of the profession, in the belief that it is very desirable to increase the opportunities for clinical instruction in London, and also with a view to extend the usefulness for teaching purposes of those hospitals to which medical schools are not attached. Three courses, each of eight weeks' duration, will be given during next year, the first course consisting of seventy-two lectures or demonstrations. The secretary is Mr. J. Fletcher Little, M.B., 60, Welbeck-street, London, W., from whom all particulars can be obtained.

THE HOWARD CENTENARY MEMORIAL.

DR. COOMBS, Mayor of Bedford, sends us a letter intimating that at a meeting in Bedford on the 12th inst. it was unanimously resolved that the proposed memorial to Howard should take the form of a statue in bronze in some public situation in the town. There may be some doubt as to *where* a monument to Howard should be erected—in Hackney, where he was born, or in Bedford, near which town he for a time resided. But there can be none as to the duty of commemorating such a man and his work by every device of art. He was indeed

> "A most incomparable man; breath'd, as it were,
> To an untirable and continuate goodness."

The hon. secretaries, who will thankfully receive subscriptions, are the Rev. E. J. Hillier, vicar of Cardington, and the Rev. W. P. Irving of Bedford.

FOREIGN UNIVERSITY INTELLIGENCE.

Dorpat.—Dr. Draggendorf, Professor of Pharmacy, has been reappointed for a further period of five years.

Freiburg (*Switzerland*).—The professorial body of this newly established university has decided to forego all fees from students.

Heidelberg.—A Hygienic Institute is about to be established, of which Professor Knauff will have the charge.

Innsbrück.—A new Anatomical Institute has just been publicly opened by the Minister of Education, Dr. von Gautsch.

DEATHS OF EMINENT FOREIGN MEDICAL MEN.

THE deaths of the following eminent foreign medical men are announced:—Dr. M. S. Libochowitz, chief medical officer of the Leopoldstadt Hospital.—Dr. E. E. Eichwald, formerly Professor of Medical Diagnosis in the Military Medico-Chirurgical Academy, St. Petersburg, and more recently Medical Inspector of the Empress Maria Fedorovna's Institutions. It is to Dr. Eichwald that the profession in Russia owes the establishment of the clinical institute for the instruction of qualified men which bears the name of the Princess Helena Paulovna. He had suffered for some time from carcinoma of the bladder, which he himself diagnosed by the microscope in the spring, after some severe periodical attacks of hæmaturia, which commenced in February. He will be greatly missed on account of his wonderful energy, his deep learning, and his great power both of pen and speech.

A DESPATCH, dated Oct. 4th last, has been received at the Foreign Office from Mr. G. H. Wyndham, Her Majesty's Minister at Rio de Janeiro, transmitting a translation of the final text of the sanitary convention between the Brazilian Empire and the Argentine and Uruguayan Republics, together with the regulations and protocol annexed thereto. The regulations for the carrying out of the convention deal with bills of health, organisation of the corps of sanitary ship inspectors, duties, and attributions of sanitary inspectors of ships, sanitary visits, quarantine regulations, and lazarettos.

MR. ANDREW CLARK, F.R.C.S., has been appointed Surgeon to the Cancer Out-patient Department of the Middlesex Hospital, in the place of Mr. Henry Morris, resigned.

DR. SIMON, the public medical officer of Singapore, is agitating for the establishment of a medical school for the Straits Settlement in that town, and hopes for Government support.

SIR JOSEPH LISTER will read a paper at the meeting of the Hunterian Society at 8 P.M. on Wednesday evening next, in the theatre of the London Institution, Finsbury-circus. Subject: "Two Cases of Long-standing Dislocation of both Shoulders treated by Operation, with remarks on the Antiseptic Treatment of Wounds." Members of the profession will be admitted on presenting their cards.

THE annual meeting of the Italian Medical Association of Hydrology and Climatology will take place in Rome on the 24th inst., when arrangements will be announced, as in a forward state, for the International Congress and Exhibition of Hydrology to be held in Rome in 1892, and also for the National Congress on the same subject which is to meet in Naples next year.

WE are glad to learn that Sir W. B. Dalby, who, as we announced a few weeks ago, had sustained an injury to his knee, has now so far recovered as to be able to resume professional work.

RECOLLECTIONS AND IMPRESSIONS

(MEDICAL, HYGIENIC, AND GENERAL)

OF THE

PARIS EXHIBITION OF 1889.

BY BENJAMIN WARD RICHARDSON, M.D., F.R.S.

THE many able and descriptive essays which have appeared in THE LANCET on the late Exhibition in Paris may seem to exclude the necessity for any further observation, and I would not think of repeating the various details which have been supplied so clearly and so faithfully. At the same time it may be agreeable to some readers of THE LANCET to peruse a few columns of matter giving a view, apart from all books, papers, catalogues, or guides of the Exhibition, of the impressions left on the mind from the *coup d'œil* of one who visited the Exhibition as an active idler to see what could be seen and retained in the shortest possible time.

To begin, then, with the impression most general, a comparison of this latest Exhibition with its predecessors. I have the good fortune, or, if increase of years be bad, the bad fortune, to remember well the first Exhibition of 1851 and most of the other exhibitions which have followed that memorable advent of competitive art; and, without any hesitation I am bound to say that the first and the last carry off the grand prizes both in methods and in details. In regard to beauty, in regard to art in its best sense, the Exhibition of 1851 still holds its pre-eminence, and is still retained most strongly in the mind, not alone on account of its novelty, but on account of its exquisite loveliness as the one perfect ideal of a home for the treasures of the world. Next to it, however, even in an artistic point of view, this one stands alone beyond dispute; while to the artistic excellency it displays must be added a much greater richness of collections in all departments, and an infinitely greater facility of seeing and understanding the whole sight as an object lesson, and a school lesson which once seen is bound to be learned as well as enjoyed. Thirty-eight years have made a mighty difference in the knowledge and skill of men in laying out these objects and lessons on a gigantic scale; and, again, the minds of men during the same period have widened and become more susceptible to and more susceptible of advanced impressions, for which reason probably the simplicity of the arrangements and the ease given to study in the present effort have stood forth with striking significancy. I overheard, unavoidably, an Englishman of the workman class telling a friend of the same class, "You *must* learn in this place, do what you will, because you can't help it." That was a true and faithful version of the whole affair. In short the Exhibition presented in a practical form one of the best teachings of Pope:—

> "Men should be taught as though you taught them not;
> And things unknown be told as things forgot."

The impressions I gleaned in regard to the exhibits bearing

on practical medicine and surgery were not specially vivid. They rather suggested the idea of respectability than of pre-eminence, and if I am correct they indicated the medicine of France more than that of the world at large. This is no fault of France, no fault of the distinguished exhibitors, who, necessarily, in their own country, had the first opportunities, and who used their opportunities thoroughly well; but it seemed to me that other countries did not second France so efficiently as they ought to have done, and assuredly England was quite capable, had she put forth her best efforts, of making a much finer display than she did as a representative of medical and of surgical advancements. In plain terms there was little if anything in the way of illustration of medical and surgical art, including obstetrics, that could not have been found in London and the other large English centres if all our surgical treasuries were to furnish their quotas properly classified. It occurred to me that in the most refined productions of surgical art, in the way of instruments and appliances, we of this country have nothing to fear in comparison, and that for ingenuity of construction, as well as for invention, we are if anything a little ahead. In the ambulance department we should hold, I am sure, a much more prominent place, the surgical instruments and appliances of the French ambulance being quite antiquated and rough, as shown in the Exhibition, in comparison with those which we are accustomed to accept as the right things in our ambulances.

In like manner pharmaceutical medicine did not appear to me to stand above the ordinary exhibition level. There was a fair competition of exhibits, but nothing specially novel either in processes of manufacture or in classification of medicines, according to their value in therapeutical records; nothing, in fact, which conveyed to the mind the progress of therapeutical research or the immense advances and simplifications which have marked the course of therapeutical science during the past decade. The apparent lapse here may possibly be due to the rapidity of the changes which have been made in this important branch of science, or to the want of unanimity among physicians themselves in relation to the specific values and qualities of the specimens belonging to the host of new remedies so continuously being added to the ordinary and extraordinary pharmacopœias. But the fact, however it may be explained, remains and deserves to be remembered as a guide to the founders and classifiers of the next great enterprise of a similar character.

In other departments connected with medicine and surgery there was a great deal to be admired and a great deal to be learned. I considered the dental exhibits unusually excellent. In the cabinets illustrating improvements in mechanical dentistry fine workmanship was combined with remarkable ingenuity of construction. This was specially appreciable in the construction of plates for carrying artificial teeth. For these plates the metals, gold especially, vied more freely perhaps than has been common of late years with the vulcanite base. But, in every instance, lightness of workmanship was the leading feature, and was carried out most determinately in some plates which really were little more than light frameworks, leaving the major part of the mucous surface of the mouth in the natural state—that is to say, uncovered. Much improvement of detail was also here shown in the formation of plates of adaptation, as they might be called, for filling up cavities in the mouth, from cleft palate and other deformities, from disease, and from the results of mechanical injuries or surgical operations.

In the mechanical department of ophthalmic art there was again excellent illustration of skill and ingenious contrivance. One set of models illustrating diseased conditions of the eyeball were simply perfect of their kind, so perfect that it was almost difficult, whilst looking at the artificial object, to realise that the actual object was not under observation. For the clinical teacher such a series must be invaluable, and the more so because the view presented in each case was so free of every exaggeration, and so rigidly true, even in feeling, as the painters say, to nature.

The cabinets showing artificial eyes sustained this department equally well. I do not think the workmanship of this class could possibly be surpassed. Here, again, the idea of adaptability was prominent. From the artificial eye that was merely a shell to one that was almost a ball of the ordinary natural size there were the different gradations, with various plans for keeping the artificial organ in its place, for permitting it to have a certain degree of movement when possible, and for supplying colour of the iris to the most delicate shade.

One of the most popular of exhibit rooms was one in the building devoted to the liberal arts, in which the anatomy of the human body was displayed. So attractive did this section become, in the later period of the Exhibition especially, that a very strict rule of admission had to be sustained, and the order to move on was in constant requisition. That a good many of the sightseers in this chamber were persons speaking the English tongue was proved by the frequency with which the attendants employed our own vernacular intimation to keep the strangers in sharp progression. But the French people, the country people particularly, were equally fascinated, and to certain of the objects showed a predilection which was of the quaintest type. Amongst other objects there was a model of the pregnant uterus, with a fœtus, of nearly full intra-uterine growth, displayed through a rather large section of the uterine wall. To get a satisfactory view of this specimen, modelled in wax or some similar material, was somewhat like making the passage to Avernus—not difficult to get into, but excessively difficult to get out of when once in it. The women folk crowded on this spot, and the wondering but perfectly simple and innocent comments which they made upon the sight before them were quite unique. I heard a commentary in which pity was the prevailing sentiment for the poor infant cramped up in such a tiny space; a sentiment which took first place as the prevailing feminine expression of pity, though some extended it to the mother as well as to the prisoner in the womb. "To think that we've all been huddled up like that there, Sarah; well, I never!" were the last words I caught from an English woman whose voice I could plainly hear, but whose face I could not see, as I elbowed my way out of the throng. Many other things in this room were well deserving of the notice they obtained. The models of the muscles of the body, of the organs and parts of the circulation, and of the brain and nervous system, as a whole and in sections, were in excellent form, and afforded selections for teaching detailed anatomy in the medical school, and also for the demonstration of general anatomy in more popular seminaries of science and art; but another exhibition on one side or wall of this section seemed to me to be entirely out of place and quite unnecessary. It consisted of a number of pictorial models of skin diseases, and even of forensic displays of wounded surfaces of the body, which to the uninitiated were sensational horrors, without being in any degree instructive. Had there been set up a line of objects illustrating, in order, the cutaneous eruptions of the common epidemic diseases, such as scarlet fever, small-pox, and the like, it might have been urged that by them a practical lesson was conveyed. I am not certain that such a display would have been strictly advisable, but I am positive that the display that was set up was inadvisable altogether. It conveyed no intelligent instruction, it produced a mixture of confused disgust and wonder, and, as a general rule, it was really far from popular. More than one person of intelligence who has spoken to me about this exhibit has expressed annoyance at having been led to look at it, and no wonder. A public exhibition built to admit millions of people of all ranks and conditions, including large numbers of women in a state of pregnancy, ought never to be made a pictorial school of morbid anatomy in its worst and most repulsive characteristics.

(To be continued.)

FISH SALES BY GUESSWORK.

By J. LAWRENCE-HAMILTON, M.R.C.S.

No. VIII.

AMONG the many abuses in the fish trade the anomalous habit of selling fish by guesswork, instead of by accurate weight as in other honourable trades, is a kind of gambling in fish within markets held on trust for the people, and these losses fall upon the consumer. Except oysters, which would still be sold by the number, in markets all fish and shell-fish should be sold by weight only, and all the expenses of providing weights, measures, and scales should be included in the market tolls. The weight of every trunk, box, barrel, and package of fish, exclusive of its contents, should be clearly branded on the outside, so as

to save time and to avoid the possible necessity of having to weigh the fish separately and apart from its vessel.

The usual fish trunk has a capacity of 2¼ cubic feet, and a dead weight varying from 19 lb. 8 oz. to 27 lb. 8 oz. These trunks are occasionally so packed that from 20 per cent. to 40 per cent. or more dead weight of fish may be wanting. "Faking the load" is to divide the contents of three trunks and repacking the fish and selling it as four trunks. "Faking the box" is placing a few good saleable fish on the top of a box filled with small inferior fish, which may even be unsaleable in the hands of the retailer. On Sept. 11th, 1889, I had sixty fish trunks and their contents as delivered at a public fish market in the United Kingdom accurately weighed, though by special attention only the apparently full or well-packed boxes were selected for weighing. Underpacked boxes were not tested. Haddocks, 84 to 93 lb. of fish; soles, 89 to 109 lb.; plaice, 98 to 103 lb.; whiting, 70 to 90 lb.; turbots, 60 to 80 lb.; unmelted ice 8 oz. to 1 lb. 2 oz., or a maximum of about 1¼ per cent. as compared with the dead weight of the fish, or just sufficient moisture to circulate the contained filth of the foul fish trunks. It is surprising that as recently as 1882, in then granting the Shadwell Fish Market its special Act, Parliament passed a clause exempting these market authorities from being obliged to provide weighing and measuring facilities. I am, however, informed that, nevertheless, Shadwell Fish Market, without any extra charges, provides all facilities for weighing and measuring the fish and shell-fish sold in its market.

A statute of Henry II. (1423) ordained that fish imported in false measure into the markets should be forfeited. The 22 Edward VI. (1483) provided that fish in barrels should be truly, well, and faithfully packed according to measures then in use. Herrings were to be both as good and as well packed in the midst and in every part of the vessel as at the open ends. No starved or pulled eels were to be mixed with good eels, which were to be sold by themselves well and justly packed. In eschewing or avoiding the aforesaid common losses and deceits, the Mayors &c. for the time being shall choose discreet and expert persons to search and gauge *daily* all such vessels, in order that these be faithfully packed, keeping their lawful measure.

The 15th Charles II., c. 16 (1663), provided that all herrings, fresh or salt, should be equally well packed in the midst and in every part of the barrel by a sworn packer, and the vessel to be branded or marked with the *quantity*, *quality*, and *condition* of the included or packed herrings.

The Act of the Common Council of the City of London, dated Sept. 17th, 1674, provides for the finding of beams, scales, and weights for the accommodation and just satisfaction of buyers and sellers of provisions. The farmers or leasers of markets omitting these duties are liable to a penalty of £10 for every offence. In the Guildhall Library there is a pamphlet, entitled "The Oppressions of the Market People, or the Extortions of the Farmers of the City Markets. Reprinted for the Public Good, London, 1720." The Markets and Fairs Clauses Act, 1847 (10 Vict., c. 14), orders that the undertakers of markets shall fully provide weighing and measuring accommodation and apparatus. Every person selling or offering for sale any article in the market or fair shall, if so required by the buyer, cause the same to be weighed or measured. The penalty for refusing is a fine not exceeding 40*s*. For committing a fraud in weighing the penalty shall not exceed £5.

The Weights and Measures Act, 1878 (41 & 42 Vict., c. 49), provides that the same weights and measures shall be used throughout the United Kingdom. This Act confirms a previous one (22 & 23 Vict., c. 56, ss. 7, 8, 12) giving power to the clerks of markets to weigh or measure all goods sold, offered, or exposed for sale in a public market. If such goods be found deficient in weight, the offender for every conviction is liable to a fine not exceeding £5. This Act also compels the owners or managers of any public market in Great Britain, where goods are exposed or kept for sale, to provide proper scales, balances, weights, and measures, and that all such expenses shall come out of the market tolls. Every market clerk or toll collector omitting this is liable on each conviction to a fine not exceeding £5.

The Weighing of Cattle in Markets and Fairs Act, 1887 (50 and 51 Vict., c. 27), also makes it compulsory for markets and fairs to provide proper apparatus and accommodation for the weighing of cattle.

All sorts of curious technical names are given to the various kinds of weights and measures used for different fish and shell-fish. The public, seeing these trade terms quoted with prices in the daily papers, is unable to check these charges with those it pays its local fishmonger. All fish and shell-fish should be sold by the pound avoirdupois only.

ABSTRACTS OF

INAUGURAL ADDRESSES DELIVERED AT THE DUBLIN HOSPITALS.

SESSION 1889-90.

MEATH HOSPITAL.

SIR GEORGE PORTER, Bart., in the course of his lecture, said that a medical education was not the acquisition of any one particular branch of learning, however perfectly that may be accomplished. It was a fact that a man might be possessed of vast stores of special knowledge, and be but indifferently educated after all. In all diseases and accidents there were certain resemblances and principles more or less universally applicable; but when they discovered how they were modified by age, sex, diet, habits, clothing, climate, and a host of other influences, they must confess that all cases have features peculiar to themselves, and that the practice of medicine depends more on the capacity for observing facts and reasoning justly upon them than on any exercise of memory, however perfect. A good general education would be all important to them, and a classical education should be regarded as indispensable. They should also obtain some acquaintance with modern languages. The body was a comprehensive unit, a wondrous whole, its exterior and interior being amenable to the same laws of health and disease. The surgeon, therefore, should be a physician, and the physician well versed in surgery before he could rightly practise his own branch. It was a vulgar error to suppose that a man can be a good surgeon who was not also a good physician. The most carefully and dexterously performed operation might be marred by subsequent medical treatment, and patients might be subjected to useless operations by a surgeon incapable of medical diagnosis. The most important of all their studies was their attendance on hospital. It was at the bedside, above all, under the guidance of their teacher, that they would acquire the invaluable experience needful for their calling. It was there that they would learn that use of their senses—sight, hearing, and touch—which would lead to the power of diagnosis. In their bearing toward the poor they should be particularly courteous and considerate, making allowance for the fretfulness of the weak sufferer, bowed down by poverty, affliction, and disease. He urged on them the importance of pathology and morbid anatomy, and concluded his address by saying that it was a serious reflection that not merely their usefulness and success, but probably the welfare and safety of thousands might depend on the instruction they would receive there.

JERVIS-STREET HOSPITAL.

THE subject of Mr. MELDON'S address was on "Pasteur and Hydrophobia." Since the commencement of the treatment until March last 6870 bitten persons had been treated in the Pasteur Institution, the mortality being just 1 per cent., as against 15 per cent. of cases not so treated. The method now adopted was as follows:—For ordinary bites the injections commence at fourteen days' virus, and end at that of three days old. For more dangerous wounds on the hands and face the number of inoculations are greater, and pass to the more recent cords more quickly. The most remarkable point in the whole discovery of this preventive treatment of rabies was that the virus itself was as yet unknown, and all attempts to cultivate it outside the body of animals had failed. Pasteur has, therefore, been obliged to use the rabbit to cultivate it, and to such perfection has this been carried that a rabbit is ready each day, at a specified time, for inoculating patients. It has been shown in several infectious diseases that the microbe

manufactures a poisonous product which itself can give rise to death. This was particularly so with the bacillus of diphtheria. His own impression was that in most cases it was with the nervous system that the secret lay. This theory was strengthened by the fact that if the poison of the charbon symptomatique was injected into a healthy rabbit no evil followed; but if the part injected was bruised or the animal weakened, then the disease was developed. Again, it was well known that a large number of those who died from hydrophobia were of a nervous temperament. Pasteur's treatment did not claim to be in any degree curative; it was prophylactic, and it was powerless when the first symptoms of the disease had appeared, and probably some days prior to this event. It was interesting to note that it had been found that turpentine had the power of completely destroying all the virulent property of the portions of the hydrophobia nerve tissue. Mr. Meldon considered that an institute like Pasteur's should be established in England. The Government should liberally endow it not only with funds, but with every instrument which science could suggest, and with a well-salaried staff selected by the voice of the medical profession, who could best form a judgment as to the qualities of the candidates. The institution should have free power to experiment, to hold commissions, and do everything which could throw light on rabies, as well as on cancer, consumption, cholera, diphtheria, and all kindred diseases. If the proper men were appointed to such an institution, many diseases which now puzzle medical science would soon be within its reach.

ST. VINCENT'S HOSPITAL.

MR. COX, in the course of his address, said that the wider and deeper the education of the students was, the higher the status of the profession they had chosen would be raised. The treatment of disease, and its prevention if possible, would be the natural study of the students. Physiology and its sister pathology were of the utmost importance. The value of physiology was best learned in the study of pathology, and he doubted if in the annals of the nineteenth century any name would shine out more illustriously than that of Louis Pasteur. He was worthy to stand beside Stanley and Livingstone for the services which he had rendered to man and to inferior nature. Chemistry, anatomy, and biology were the foundations upon which their work rested, and in the study of them, and in physiology and pathology, lay the keys to the mysteries of disease.

ADELAIDE HOSPITAL.

MR. KENDAL FRANKS said that in choosing the profession of medicine they were entering upon a life of anxious toil. They need not expect the easy pleasures or the roving life of English warriors, with the occasional opportunity of winning a world-wide reputation or a Victoria Cross by a signal act of heroism. Soldiers had in their career periods of active service. They had hardships to endure, obstacles to encounter and surmount, foes to contend with, death to face. But at least they knew that their country looked on, sympathised with their sufferings, and triumphed in their victories. In the medical profession they were always on active service; they were on duty day and night; they had to contend against a foe not less real because unseen, and who never makes a treaty of peace. They should all strive after eminence in their profession, but let it be the eminence of a spotless name, an honourable career, an unselfish life. Mr. Franks referred to the progress of antiseptic surgery, which had opened up new fields for surgical enterprise little dreamed of a few years ago. He concluded by saying that if, in the words he had spoken there, he had induced them to look upon their profession as one which progresses in knowledge, and which applies that knowledge to the relief of their suffering brothers; if he had kindled in their hearts a spark of enthusiasm to excel in all that was most noble, most unselfish, in the life of man, to imitate the example of the Great Physician who went about doing good, healing the sick, and at last sacrificing His life for others, his efforts would not have been in vain.

CHILDREN'S HOSPITAL, TEMPLE-STREET.

THE lecturer (Dr. MCVEAGH) contrasted the miserable surroundings of sick children at home with the bright lot of those cared for in the clean cots of the Children's Hospital, and said that many persons had asked, when demurring to the necessity of special hospitals for children, why these cases could not be treated in the ordinary hospitals. The reply was this, that these little children are not fit subjects for large hospitals, as they would require a special staff of medical officers, and would entail a vast amount of labour totally unsuited to the physicians and surgeons of a general hospital. Diseases of children, unlike maladies of adult life, were most difficult to deal with. The recuperative power is very great in children, but not in those of the poor, with whom they had to deal, as they often did not come into hospital until disease had been fully developed in their wasted frames. It had been a most fatal mistake in their licensing bodies that a regular attendance upon a children's hospital had not been a part of the curriculum in medical students' studies, as in after life, when in practice, this omission was found to be a most unfortunate one. He had often known medical men, and some of great eminence, quite at sea when a sick child was the patient to whom they were called. They should always bear in mind that to gain the affections of children they must adopt the *suaviter in modo*, not the *fortiter in re*. Even in domestic life the rod was, or ought to be, a thing of the past.

ROYAL STATISTICAL SOCIETY.

THE fifty-sixth session of this Society was opened on Tuesday, the 19th instant, at the Royal School of Mines in Jermyn-street, when the President, Dr. T. Graham Balfour, F.R.S. &c., delivered an opening address, in which, after congratulating the members on the continued prosperity of the Society, he referred in feeling terms of regret to the unusually heavy death roll since the opening of last session. Alluding to the value of statistics, Dr. Balfour remarked that information of this description received now much more official recognition and support than was formerly the case, and he thought it was characteristic of this country that private enterprise organised and executed many undertakings which elsewhere would be left to a department or bureau. Of all the problems created by the social and economical revolutions of the past hundred years, those involved in the growth and condition of London were, perhaps, the hardest to solve and the most imperative in their demands for an answer. The air was full of cries of distress and of proposed remedies, but before the one could be adequately relieved or the other finally accepted, a full knowledge of the circumstances and conditions should be obtained and recorded. Of the remaining subjects dealt with by the President, the most important was that of the connexion between statistics and the improvement in sanitary science, than which probably no science had made more rapid progress or been more thoroughly popularised during the last thirty years. He claimed for statistics the credit of being the solid foundation on which the fabric of public sanitation had been established, by which the success or failure of the various works undertaken had been measured, and the results brought from the hazy atmosphere of conjecture into the clear light of certainty.

HOSPITAL REFORM.

A GENERAL MEETING of members of the medical profession resident within twenty-five miles of Birmingham was held in the Birmingham Medical Institute last Wednesday, for the purpose of considering a report prepared by a preliminary subcommittee on the subject of the alleged abuse of hospitals, and to take action thereon. Dr. W. F. Wade presided over the meeting, at which over a hundred gentlemen were present. Mr. Priestley Smith, in moving the first resolution, "that in the opinion of this meeting the statement of the committee as to the existence

of abuses in hospital management is correct," said he did not think there was a medical man present who could not prove that relief had been administered under circumstances to which the hospitals were never intended to apply, and demoralised the working classes by causing them to become improvident. One shilling per head on the number of cases treated in Birmingham hospitals would be no hardship, yet it would yield £25,000, and that sum really represented so much loss to the profession. A resolution was then proposed by Dr. Rickards—"That in the opinion of this meeting the proposed inquiry would be most usefully conducted by means of a conference between representatives of the general and special hospitals, of the general dispensary, of the Hospital Saturday Committee, of the board of guardians, of the existing provident dispensaries, of the Charity Organisation Society, and of the general body of the medical profession." Both resolutions were put and carried unanimously, and an influential committee was appointed to represent the profession, and to take such steps as might be necessary. This committee was instructed to appoint a deputation to wait upon the Mayor and respectfully request him to arrange for a conference as suggested, or to take such steps as might seem to him advisable. The proceedings, which were marked throughout by considerable enthusiasm, concluded with a vote of thanks to the chairman for presiding.

MEDICAL TRIAL.

DAVIES *v.* THE GREAT WESTERN RAILWAY PROVIDENT SOCIETY.

THIS was an action brought by the Medical Defence Union on behalf of Dr. Davies of Llantrisant against the Great Western Railway Provident Society for illegal dismissal. The case was tried in the local County Court some months ago, and the learned judge awarded the plaintiff £40 damages with costs. The defendants appealed, and the case was heard in the Queen's Bench Division of the High Court of Justice on the 6th instant. Without calling upon the counsel for Dr. Davies their lordships dismissed the appeal with costs.

VITAL STATISTICS.

HEALTH OF ENGLISH TOWNS.

IN twenty-eight of the largest English towns 5580 births and 3353 deaths were registered during the week ending Nov. 16th. The annual rate of mortality in these towns, which had been 17·5 and 18·1 per 1000 in the preceding two weeks, further rose last week to 18·3. During the first seven weeks of the current quarter the death-rate in these towns averaged 17·9 per 1000, and was 2·6 below the mean rate in the corresponding periods of the ten years 1879-88. The lowest rates in these towns last week were 11·7 in Birkenhead, 12·1 in Bristol, 13·0 in Hull, and 13·2 in Derby. The rates in the other towns ranged upwards to 24·6 in Newcastle-upon-Tyne, 26·7 in Manchester, 26·8 in Sunderland, and 28·5 in Preston. The deaths referred to the principal zymotic diseases, which had been 364 and 326 in the preceding two weeks, rose again last week to 342; they included 72 from scarlet fever, 70 from measles, 56 from whooping-cough, 54 from diphtheria, 54 from "fever" (principally enteric), 36 from diarrhœa, and not one from small-pox. No death from any of these zymotic diseases was registered during the week either in Brighton or in Huddersfield; while they caused the highest death-rates in Preston, Plymouth, and Sunderland. Scarlet fever caused the greatest mortality in Preston and Plymouth; measles in Bradford, Preston, and Sunderland; whooping-cough in Wolverhampton; and "fever" in Bradford, Bolton, and Preston. The 54 deaths from diphtheria in the twenty-eight towns included 38 in London, 9 in Salford, and 2 in Manchester. No death from small-pox was registered in any of the twenty-eight great towns. Only one small-pox patient was under treatment at the end of the week in the Metropolitan Asylum Hospitals, and not one in the Highgate Small-pox Hospital. The number of scarlet-fever patients in the Metropolitan Asylum and the London Fever Hospitals at the end of the week was 1597, against numbers constantly increasing in the preceding twenty weeks from 559 to 1557; 176 cases were admitted to these hospitals during the week, against 135 and 204 in the previous two weeks. The deaths referred to diseases of the respiratory organs, which had been 281, 300, and 318 in the preceding three weeks, further rose last week to 321, but were 107 below the corrected average. The causes of 3353, or 2·0 per cent., of the deaths in the twenty-eight towns last week were not certified either by a registered medical practitioner or by a coroner. All the causes of death were duly certified in Leicester, Blackburn, and in five other smaller towns; the largest proportions of uncertified deaths were registered in Sheffield and Liverpool.

HEALTH OF SCOTCH TOWNS.

The annual rate of mortality in the eight Scotch towns, which had been 20·3 and 19·8 per 1000 in the preceding two weeks, was 19·8 in the week ending Nov. 16th; this rate exceeded by 1·5 the rate that prevailed during the same week in the twenty-eight large English towns. The rates in the Scotch towns last week ranged from 13·6 and 14·0 in Leith and Dundee, to 22·8 in Glasgow, and 23·7 in Perth. The 509 deaths in the eight towns showed an increase of 2 from the number in the previous week, and included 16 which were referred to diphtheria, 14 to whooping-cough, 13 to measles, 11 to diarrhœa, 5 to scarlet fever, 5 to "fever" (typhus, enteric, or ill-defined), and not one to small-pox; in all, 64 deaths resulted from these principal zymotic diseases, against 53 in each of the preceding two weeks. These 64 deaths were equal to an annual rate of 2·5 per 1000, which exceeded by 0·6 the mean rate last week from the same diseases in the twenty-eight English towns. The deaths referred to diphtheria, which had been 9 and 10 in the preceding two weeks, further rose last week to 16, of which 4 occurred in Paisley, 3 in Glasgow, 3 in Edinburgh, 3 in Dundee, and 2 in Leith. The 14 fatal cases of whooping-cough showed an increase of 6 upon the number in the previous week, and included 10 in Glasgow and 2 in Paisley. The deaths from measles, which had been 7 and 10 in the previous two weeks, further rose last week to 13, of which 7 occurred in Edinburgh and 5 in Glasgow. The 11 deaths attributed to diarrhœa, 8 of which were returned in Glasgow, exceeded the number in the previous week by one. The 5 fatal cases of scarlet fever, including 2 in Glasgow and 2 in Leith, showed, however, a decline from recent weekly numbers. Three of the 5 deaths referred to "fever" were returned in Glasgow. The deaths attributed to acute diseases of the respiratory organs in the eight towns, which had been 153 and 127 in the preceding two weeks, rose again last week to 149, and exceeded the number in the corresponding week of last year by 45. The causes of 63, or more than 12 per cent., of the deaths registered in the eight towns were not certified.

HEALTH OF DUBLIN.

The death-rate in Dublin, which had been 27·3 and 24·5 per 1000 in the preceding two weeks, rose again to 26·3 in the week ending Nov. 16th. During the first seven weeks of the current quarter the death-rate in the city averaged 25·0 per 1000, the mean rate during the same period being 17·4 in London and 17·6 in Edinburgh. The 178 deaths in Dublin showed an increase of 12 upon the number in the previous week; they included 7 which were referred to "fever," 2 to measles, 2 to whooping-cough, 2 to diarrhœa, 1 to scarlet fever, and not one either to small-pox or diphtheria. Thus the deaths from these principal zymotic diseases, which had been 19 in each of the preceding two weeks, declined last week to 14; they were equal to an annual rate of 2·1 per 1000, the rate from the same diseases being 2·0 in London and 2·3 in Edinburgh. The deaths referred to "fever," (typhus, enteric, or ill-defined), which had been 6, 11, and 13 in the preceding three weeks, declined again last week to 7. The deaths from the other zymotic diseases scarcely differed from the numbers returned in the previous week. The deaths of infants exceeded by 3, and those of elderly persons by 14, the numbers in the previous week. Eight inquest cases and 6 deaths from violence were registered; and 46, or more than a quarter, of the deaths occurred in public institutions. The causes of 23, or 13 per cent., of the deaths in the city were not certified.

Correspondence.

"Audi alteram partem."

DR. KLEIN'S POSITION WITH REGARD TO THE COMMA BACILLUS AND HIS REPLIES TO CRITICISM ANSWERED.

To the Editors of THE LANCET.

SIRS,—In a leading article of THE LANCET of March 9th, 1889, discussing a conjoint paper on cholera by Mr. Milles and myself, you justly remarked that "Dr. Klein, as the most determined opponent of that [Koch's] conclusion, comes in for a great deal of criticism." That criticism dealt with Dr. Klein's cholera articles in the *Practitioner* for 1887. He has since published a reprint of these articles under the title, "The Bacteria in Asiatic Cholera," and therein he replies to the criticism, quoting, however, not from our paper in THE LANCET of March 2nd and 9th, but from an abstract published in the Reports of the Laboratory of the Royal College of Physicians, Edinburgh. The paper in THE LANCET he does not appear to have read. Will you do me the favour to place before the profession my reply to what Dr. Klein in his book designates "a criticism of the recently published researches of Messrs. Macleod and Milles"? In his preface to "The Bacteria in Asiatic Cholera," page 7, Dr. Klein twice represents himself as occupying the same position as Baumgarten, von Pettenkofer, D. D. Cunningham, and others—viz., that Koch's comma bacilli have not "been satisfactorily proved to be the cause of cholera." Now, in the work thus prefaced, Dr. Klein repeatedly advances what he regards as proof that Koch's organism *cannot* be the cause, but is the *result* of the disease, and therefore a normal inhabitant of the human intestine and multiplying as a result of the choleraic condition. The two positions are not both tenable at the same time. If Dr. Klein believes that Koch's bacillus is the result, and cannot be the cause of the disease, he thereby deprives himself of any claim to occupy the cautious attitude of the eminent authorities he cites, an attitude which admits the possibility that Koch's conclusion may be correct.

On page 177 of his book he says: "In criticising my statements they make certain strictures on me which are quite unwarranted."

It may be as well to mention that he quotes in every instance from a part of the paper for which I alone am responsible, as was stated in the paper itself. I plead guilty to freely criticising Dr. Klein's work, but not to making a single stricture on himself, having taken special care to avoid all personal references. Of these "strictures" the following is the only one he furnishes, page 177:—"On page 173 they say: 'Klein's experiments, in which he gave the opium in other ways than by the peritoneal cavity, and then injected the cholera bacillus with negative results, are inconclusive, as he never made a control experiment with his material to see whether he was able to produce Koch's results under Koch's conditions.' [The well-known attenuation of virus through cultivation is left out of consideration.] This is in so far an unwarranted statement, as I have made control experiments under Koch's conditions with the result described by Koch. After the eighty-five successful experiments recorded by Koch, I do not see the necessity for me or anyone else to emphasise the correctness of Koch's observations."

The sentence in parenthesis, and without which the meaning may not be clear, Dr. Klein omitted in his quotation. He is not charged, as he seems to think, with having omitted to verify Koch's results, but with having at the time of these thirty experiments omitted to make control experiments with the material then used, in order to test whether that material was virulent, since all his animals escaped. Koch's contention is that injection of a certain quantity of tincture of opium into the peritoneal cavity lessens peristalsis of the gut; Dr. Klein denies this, and affirms that it probably quickens peristalsis, and at all events produces a "diseased state" of the bowel, which state he does not further particularise. In support of this statement, *instead of testing by experiment the effect of opium on peristalsis* as alleged by Koch, Dr. Klein performed thirty experiments in which he produced narcosis in other ways than by injecting opium tincture into the peritoneal cavity. The cultures of comma bacilli used in these experiments did not kill a single animal, and he attributed their escape to the absence of the "diseased state" of the gut, since he had not interfered with the peritoneal cavity. As the animals might have escaped because of loss of virulence of the cultivations used—i.e., the results being negative—control experiments with the same material demonstrating their virulence were surely necessary. In October, 1888, Koch informed me that his material had become so attenuated by cultivation that he no longer could obtain his former results. Dr. Klein now informs his readers, two years after publishing his experiments, that he made the *necessary* control experiments, and complains that my criticism pointing out the omission is unwarranted. Surely if they were necessary to be made they were worthy of mention with the experiments they controlled. What does he mean when he says, *in this connexion*, "I do not see the necessity for me or anyone else to emphasise the correctness of Koch's observations"?

Concerning one of our conclusions Dr. Klein observes, p. 178: "Surely if anyone maintains, as they do on p. 177, 3, that 'the means used to introduce the comma bacillus into, and those used to lessen the peristalsis of, the small intestine of the guinea-pig, cannot be regarded as causing appearances like those of Asiatic cholera, or causing the death of the animal,' we should require proof by control experiment—i.e., we should require proof that by inducing narcosis otherwise than by intra-peritoneal injection of tincture of opium we nevertheless obtain the same positive results. But such control experiments do not seem to have been made by them."

With comma bacilli I made over fifty experiments in guinea-pigs under certain preparatory conditions with positive results. Over thirty additional experiments were made to determine whether these positive results could be due to those *same* preparatory conditions *alone*, and the results were embodied in the conclusion to which Dr. Klein objects. These latter experiments are commonly termed "control experiments." Dr. Klein appears to use the term control in quite a different sense, for he demands that I should have made other control experiments with *different* preparatory conditions! Is it possible that this new use of the expression has led to the complaint that "while I have made the necessary control experiments which Messrs. Macleod and Milles charge me with having omitted, I do not find anywhere in Messrs. Macleod and Milles' paper a reference to control experiments of their own" (p. 178). For, on reperusal of the abstract which he quotes, he will find over forty control experiments with opium alone, soda alone, soda and opium, normal ileum contents and cholera cæcal contents.

Another of Dr. Klein's complaints is as follows (p. 178):—"Amongst the numerous experiments made by these gentlemen, some partly in repetition of Koch's, partly of Van Ermengen's experiments, I do not find any experiments to show that my contention is wrong."

The experiments were expressly stated to be by one of us. His contention was, first, that injection of tincture of opium into the peritoneal cavity did not lessen peristalsis, and, second, that Koch's positive results were not due to the lessening of peristaltic action, but to a diseased state of the gut already referred to. The first part of the contention, which Dr. Klein himself appears to have lost sight of, was proved to be wrong by my experiments. These experiments are described in both the paper and the abstract. I did not point out that the second part of the contention was wrong, but that it was not borne out by his thirty experiments, vitiated as they were by two fallacies, and therefore I did not feel myself called upon to test experimentally a point so supported.

Another reference to our work is this (p. 178):—"Nor do I find elsewhere in Messrs. Macleod and Milles's paper a reference to the important experiments made on a large scale by Finkler with Finkler's comma bacillus, and described in a former chapter (p. 137). As has been stated, Finkler, experimenting on guinea-pigs with cultures of his comma bacillus after Koch's method, produced results identical with those produced by Koch's comma bacillus. I think this proves conclusively that the action of the choleraic comma bacillus thus experimented with in the guinea-pig cannot possibly be said to be identical with *cholera asiatica*; for if so, then both Finkler's and Koch's comma bacillus would have to be regarded as the cause of cholera, which would be an absurdity."

It is not quite the case that Finkler's bacillus produces on

guinea-pigs results *identical* with those effected by Koch's, but granting that they do the argument here advanced would imply, unless its application is limited to this single instance, that one organism *constantly associated with a disease* cannot possibly be the cause of that disease, because another organism *not so associated* produces like effects on a guinea-pig. As well might Dr. Klein urge that one drug found in a dead body could not possibly be the cause of death, because another drug, not found in that body, produces like results in a guinea-pig.

One more, and the last, of Dr. Klein's replies. On p. 179 he writes: "In criticising an argument of mine as to the exemption from cholera of attendants and those who constantly are brought into contact with cholera dejecta, Messrs. Macleod and Milles compare on page 177 the mode of spread of the cholera contagium with that of syphilis; this, I think, is scarcely necessary for me to seriously consider."

I quite agree with Dr. Klein. Such criticism is not worth serious consideration. Since, however, a comparison of the mode of spread of the cholera contagium with that of syphilis was neither made nor implied, I venture to ask Dr. Klein's serious reconsideration of the point. The passage containing Dr. Klein's argument is as follows. "If, as many believe, the cholera dejecta *per se* were possessed of infective power, then it would be quite impossible to understand how it happens that the attendants, nurses, and physicians of cholera patients, those that handle the cholera dejecta, the friends and relatives living in the same room, remain so often exempt."[1]

Unless this argument applies to cholera alone, it must mean that "it is quite impossible to understand how it happens that the attendants &c. remain so often exempt" in the case of a disease the discharges of which "are possessed of infective power." Syphilitic discharges are possessed of infective power; does Dr. Klein find it quite impossible to understand how it happens that attendants &c. remain so often exempt from that disease? This is the criticism which he represents as a comparison of the mode of spread of the two diseases and scarcely necessary for him to seriously consider. Further commenting on this point in THE LANCET my criticism runs: "The fact that doctors, nurses, &c., in attendance on cholera patients are not specially subject to the disease, whilst it points to the inference that the cholera poison is not usually transmitted from person to person under these circumstances, by no means proves that such transmission cannot take place. ..... It is not usual to carry the discharges from the bowel directly to the mouth; hence, probably one of the reasons why those in attendance on the cholera sick do not suffer more than others." I am, Sirs, yours faithfully,

Shanghai, Oct. 4th, 1889. NEIL MACLEOD, M.D.

BLINDNESS BY DISABILITY.

To the Editors of THE LANCET.

SIRS,—A few weeks ago a girl was brought to me whose sight was destroyed nine months since by an attack of the intense optic neuritis which is an occasional consequence of chlorosis. She is blind for life, no chance of useful vision now remaining. Had the neuritis been detected in its early stage, and its cause treated, her sight would now be unimpaired; even when her sight began to fail it is probable that useful vision might have been restored. No symptom yields more rapidly to rest and iron. Chlorotic neuritis has been repeatedly described during the last ten years, as your own columns will bear witness. But it is to another matter, even more important, that I desire to call attention.

The patient was under the care of a doctor who could not use the ophthalmoscope. Instruction in the use of this instrument has been nominally given in our medical schools for thirty years. What proportion of the men who have been educated during that time, and now must constitute the majority of medical practitioners, are able to use it? What proportion of the men who now each year receive their diplomas are able to see an optic disc? What proportion of them can recognise a slight but unequivocal optic neuritis—a neuritis in the stage in which often enough it *must* be recognised, if the patient is to be saved from blindness?

Beyond these questions is another. Has this moderate knowledge, this moderate skill, necessary to save from blindness, ever yet been made essentially a necessary qualification before a man has been entrusted with the sight of others, more precious to them often than life itself? Has any student ever yet been definitely tested in the use of the ophthalmoscope in the pass examination for a diploma?

Whatever the answer may be, one thing is certain: skill may be acquired in the last months of the curriculum, but the knowledge cannot be. For this the use of the ophthalmoscope must be systematically and thoroughly taught at the commencement of hospital work. The student must use every opportunity he can obtain during the whole of his practical work if he would become able to recognise alterations that are even moderate and to interpret them aright. That at some schools a few students obtain this essential experience is due entirely to the efforts of physicians who happen, I may almost say, to have made themselves specially familiar with the instrument. Until the authorities are moved so it will be.

I am, Sirs, yours obediently,

November, 1889. W. R. GOWERS.

THE SO-CALLED PRESYSTOLIC MURMUR.

To the Editors of THE LANCET.

SIRS,—The position which your journal holds as a court of late, if not of last, appeal makes it necessary for me to draw attention to a matter small in itself but important in the issues it involves. You say that I have "laid undue stress upon the coincidence of the carotid pulse with the abrupt sound that terminates the presystolic murmur, for the time between the ventricular systole and that pulse is almost inappreciable, so that on the regurgitant hypothesis of the bruit the pulse should be felt much earlier in the latter's course." Now, I submit that on the regurgitant hypothesis the carotid pulse occurs just where it should. This pulse occurs during the systole of the heart, but at a time appreciably removed from its beginning. If you will look at some diagrammatic representations of the succession of events which make up the cardiac cycle (I have before me that one in Dr. Balfour's book) you will see that the carotid pulse, instead of being instant on the beginning of the systole, does not present itself until that act is half over, or until the first sound is more than half over, being separated from the commencement of the sound by an interval which can be recognised without other instruments than the stethoscope and the finger. Now the snap in mitral stenosis corresponds so closely with the arterial beat, and begins so nearly with it, that our senses can detect no precedence on the part of the sound. You, in fact, admit, and I take it to be generally admitted, that the snap and the beat are coincident. So short is the snap that, if the pulsations reach the carotid before it is over, it must be presumed to have begun before it. If the systole begins before the beat, it must begin equally before the snap, for the two are synchronous. Thus the attitude of the ventricle immediately before the snap is that of systole. But there is nothing between the snap and the murmur; the murmur runs up to the snap just as it runs up to the carotid beat. On this showing the murmur must be present in the systolic period; in other words, must be systolic and regurgitant. Thus, if the carotid pulse is correctly represented in regard to the systole, I can scarcely think that I have laid too much stress upon its coincidence with the snap. I am, Sirs, yours faithfully,

November, 1889. W. H. DICKINSON.

*** We gladly insert Dr. Dickinson's explanation, but regret to be obliged to differ from him in the conclusion to be drawn from the fact stated.—ED. L.

HOSPITAL OUT-PATIENT REFORM.

To the Editors of THE LANCET.

SIRS,—As one of the assistant physicians to the Manchester Royal Infirmary, who has a favourable opportunity of studying the effect of the application of what is now known as the Manchester system for checking hospital abuse, will you allow me to contribute a few facts which may be of interest to some of your readers? From your editorial article of Nov. 9th it is evident that some statement is necessary as to what has been the result of the system. Possibly also some information is also necessary as to the details of the plan. The system as applied at the

[1] Practitioner, April, 1887, p. 276.

out-patient department of the infirmary is as follows:—Every patient on coming to the infirmary is closely questioned by the hospital clerk as to his or her weekly wage. If the applicant for relief is in receipt of a higher wage than the one stated below, he or she is invited to contribute a small sum towards the hospital. If they are considered to be able to pay a private medical practitioner, the fact is brought to the knowledge of the assistant physician or assistant surgeon for the day, and, unless he deems them to be urgently in need of medical attention, they are refused relief. All other applicants are admitted; but patients living in Manchester or Salford are almost immediately visited by an officer of the Manchester and Salford District Provident Society, who makes inquiries into their position, and is authorised to act as follows. If any single man or woman is in receipt of a wage exceeding 12*s.* per week, or a married couple of a wage exceeding 18*s.* per week (1*s.* 6*d.* extra being allowed for each child), the officer withdraws their infirmary card, and informs them that they are not admissible to, and can no longer receive treatment at, the infirmary. He advises them to join the provident dispensary of the district in which they reside, and gives them all necessary particulars for becoming members. Before a new member of the Society, however, is entitled to benefit, a period of a month must elapse; and in the interval, under an arrangement made with the infirmary authorities, he is permitted, on producing evidence of having joined the provident dispensary, to attend and to receive advice and medicine at the infirmary *without making any payment*. Further, if, after joining the provident dispensary, the dispensary medical officer considers the case more suitable for treatment at the infirmary, the person may continue at the hospital without payment. If such a provident patient is admitted as an in-patient to the infirmary, no charge is made, although all other in-patients are invited to contribute towards the expenses.

The results of this system in the hospitals which have adopted it is partly told by Dr. Rentoul in his letter to THE LANCET of the 16th inst. During the first year (1875) of the application of the system, it was found that 42·32 per cent. of the patients attending those hospitals were in a position either to join the provident dispensary or to employ a private medical attendant; in the following year the number had fallen to 24·5 per cent., and the fall has been almost continuous ever since. Last year it was found that the number of cases which were unsuitable for treatment at those hospitals was as low as 6·53 per cent. (at the Royal Infirmary it was only 6 per cent.).

As regards the effectiveness of this system in checking abuse, I can speak very positively. Unlike the hospital physicians to whom Dr. Rentoul refers, I am keenly interested in the question of hospital reform, and no one is more anxious than I am to prevent the abuse of our hospitals, an abuse which is not only demoralising to the patient, but detrimental to the interests of the hospitals and to all branches of the medical profession. For some time past I have closely watched for instances of abuse on the medical side of the infirmary out-patient department (I wish it to be clearly understood that I am only able to testify as to that branch of the infirmary work), but I have not found a single undoubted instance of a person coming whom I considered ought not to do so, and who resided within the area of the Manchester and Salford District Provident Society. The only cases where there has been any apparent abuse, and such instances have not been numerous, have been patients whose statements could not be verified, it being found impossible to inquire into the circumstances of patients living in districts outside Manchester and obviously widely scattered.

If I might be allowed to offer any criticisms on the details of this system, I should say that the wage limit is decidedly too low. I would make the wage limit about 15*s.* for a single person, and about 21*s.* for a married couple, allowing, say, 2*s.* extra for each child. Another apparent fault in the details of the system is that it is more fair to the provident dispensary than to the infirmary. A provident dispensary patient may not only be referred to the infirmary for out-patient treatment by the dispensary medical man, but if admitted as an in-patient he obtains advice and medicine free, no officer of the infirmary being *allowed to ask* such a patient to contribute to the hospital funds. It will be seen, however, that these faults, if faults they can be considered, are not due to the general system, but to details in carrying it out, and the remedy for these is in the hands of the board of management of the infirmary.

In conclusion, I wish to express my indebtedness to the general superintendent of the infirmary, Mr. W. L. Saunder, for much valuable information in connexion with this subject.

I am, Sirs, yours faithfully,

THOMAS HARRIS, M.D.

Mosley-street, Manchester, Nov. 18th, 1889.

THE SCOTCH UNIVERSITIES COMMISSION: WHY SHOULD DEGREES IN ARTS NOT BE MORE ACCESSIBLE TO MEDICAL STUDENTS?

To the Editors of THE LANCET.

SIRS,—Many matters, no doubt, will occupy the attention of the University Commissioners, and, having to consider the universities as a whole, they no doubt will deal with many matters connected with the separate faculties in a different manner than if they were dealing solely with one faculty, such as Law or Medicine. There is one subject which, though not strictly medical, is of such importance to medical men that it should certainly meet with the most careful consideration from the Commissioners. The importance of this matter alone warrants the occupation of the pages of THE LANCET with this article. It is to be hoped that the medical professors of the Scotch universities will make common cause to remedy what at present is a distinct hardship to the student of medicine. I allude to the subjects required and the time taken up in attaining the degree of M.A. The time may be practically stated as four winter sessions of six months each, the subjects are laid down on hard-and-fast lines, and little or no change has been made in the course within the memory of man. To graduate in Arts and Medicine in Scotland really means eight years of study. It is a great pity that the arrangements of all the universities as regards their Arts degree were not remodelled, made more elastic, and more in accordance with the requirements of the age we live in. In the Dublin University the medical student receives certain exemptions in the course for B.A., and at least two subjects that enter into his medical course can be taken in the Arts course.

Without taking up time by critically examining into and stating particularly the advantages offered by the more elastic mode in which an Arts degree can be attained in Oxford and Cambridge, I may just roughly state that botany, chemistry, and zoology can be taken at Cambridge in the Arts course, and such classes count in the Medical course; while in Oxford any student who has graduated as B.A., and has been placed in the first or second class in the School of Natural Science, and received from the public examiner a special certificate of his attainments in mechanical philosophy, chemistry, botany, or biology, need not be examined again for his M.B. degree in any science specified in such certificate. Now, if we turn our eye to the Scotch universities, we find that the course for the M.A. really extends over four winter sessions, and necessitates attendance on classes of Latin, Greek, mathematics, logic, moral philosophy, natural philosophy, and English literature. By passing an entrance examination on certain subjects it is possible to get the degree in three winter sessions of six months each; very few, however, seem able to get the degree in less than the usual four winter sessions. As in the Universities of Oxford, Cambridge, and Dublin, a B.A. degree once existed in some of the Scotch universities, but it was done away with at some date—about 1860. This is much to be regretted, and it is now almost imperative that the Scotch universities should make an Arts degree of a more comprehensive character than it is at present. In all universities such a degree as a pass B.A. should be a certificate of the training and knowledge necessary for a man to take his place in educated society, and it should furnish reliable evidence of his fitness for a learned profession. It would be very convenient if a degree in Arts were given in the universities with a complement of a certain number of subjects as a total for the degree, but with a certain number of such subjects optional, so that the divine, the lawyer, and the doctor of medicine of the future might, with a common groundwork, choose the number of subjects—when choice was allowed—that might suit their future career. Any subject which again entered into a degree examination in the different faculties should have a certain test value and standard, and should exempt from

other degree examinations in such subjects. It would be unnecessary to have a college residence of more than two winters and two summers—the winter term six months, the summer term three months,—provided the examination could be passed. Having to spend four years in the acquisition of an Arts degree is what prevents its being taken, as it should be, by the bulk of M.B.'s.

The following rudimentary sketch will give an idea of what I should propose, and what I believe would meet with great acceptance, be useful to all the professions, increase the numbers of Arts graduates, and cancel the slur of want of general academic culture which hangs over the bulk of the medical profession. I would here point out the value of a knowledge of French and German to medical men. This has not so far received proper attention. The elementary education of medical men has so far been conducted too much on old lines. At one time Latin was the language of the learned of all nations, and, as such, a thorough knowledge of it was a necessity in foreign travel, in publication of researches, discoveries, and records, or, in short, for any work done in any branch of learning. It was an absolute necessity that such should be written in the Latin tongue, so as to be accessible to all interested in such subjects. A knowledge of Latin, the language of erudition, enabled the student, the divine, the lawyer, or the doctor to travel and to sojourn at seats of learning with comfort and profit, to give and receive knowledge, and to exchange opinions on topics of professional, scientific, or literary interest. Nowadays this is greatly changed, and in France, Germany, Switzerland, Austria, Italy, and Russia a knowledge of French is really, of all languages other than English, the most useful.

In the recent past, and even in the present, Latin and Greek have absorbed too much of the attention both of schoolmaster and scholar, to the exclusion of English, French, and German. A certain amount of Latin and Greek may be granted as necessary, but to devote several years almost exclusively to the study of the dead languages is altogether too much to require from those who intend to devote themselves to a profession where the best brain efforts are necessary to acquire a knowledge of the work which has been done even in one or two of its departments, not to speak of adding to that knowledge by original research. It is on these grounds that I would strongly press for some alteration in the present academic curriculum which eventuates in a degree in Arts. By all means make the Honour degrees high—make them severe tests of scholarship in the dead languages, more especially as qualifications for fellowships, where such exist; but at the same time reconsider and readapt the ordinary course of study for the requirements of the age; institute new chairs (notably of German and French) so as to enable such a course to be carried out. Institute an entrance examination in English, geography, arithmetic, the history of England, Scotland, Ireland, and France, and in Latin and Greek, then necessitate a two winter and summers' residence at a university and an attendance on at least four classes compulsory to all, and four classes to be selected as suitable to students of the different faculties, granting the B.A. degree on passing an examination on such subjects and exempting in future degrees from examination in such subjects, the tests being as high as in special degree examinations.

Sketch Plan for a B.A. Degree.

Compulsory to all.		Suitable for B.D.		For B.I.		For M.B.
Latin	....	Moral Philosophy	....	History	....	Botany
Greek	....	English Literature	....	English Literature	....	Natural History
Mathematics	....	Hebrew	....	French	....	Chemistry
Natural Philosophy	....	French or German	....	German or Medical Jurisprudence	....	French or German

At present the Arts professors in the Scotch universities rest from their labours for half each year. Why should they not have a three-months' summer course like their medical colleagues? From many points of view a summer term in Arts would be convenient for students, especially for the future student of Medicine.

Arts professors may probably look on the course and the degree from a point of view different from that taken by students, especially medical students. University professorial life insensibly tends to strong conservatism. Such an opportunity as now presents itself for remodelling the Arts degree, making it more accessible and more useful to the different professions, must be my excuse for touching on this subject.

I am, Sirs, yours faithfully,

Carlisle. J. A. CAMPBELL, M.D., F.R.S.E.

REPORT OF THE COMMISSIONERS OF PRISONS.

To the Editors of THE LANCET.

SIRS,—The writer of the article on the Report of the Commissioners of Prisons, in your last issue, has fallen into error with regard to the number of prisoners who were found to be insane on admission into prison. The total number of inmates of the local prisons of England and Wales who were found to be insane during the year ended March 31st, 1889, was 349. Of these as many as 290 were recognised as being insane on admission into prison. I state in my "notes" that 93 "*sentenced*" prisoners were found to be insane upon reception, and I give a table showing the number of insane prisoners received with sentences varying from three days to five years. Your reviewer takes this number (93) as being the number of prisoners found insane upon reception, and, deducting it from the total of 349, arrives at the conclusion that in 256 cases the insane condition was not detected by the prison medical officer upon admission. I should, perhaps, point out that many of the inmates of prisons are not undergoing sentences, but are under remand, or are awaiting trial.

I am, Sirs, your obedient servant,

Home Office, Whitehall, S.W., Nov. 18th. R. M. GOVER.

To the Editors of THE LANCET.

SIRS,—In your reference to Dr. Gover's statement "that it not infrequently happens that persons who are in an advanced state of disease and even dying are sent to prison," you make an objection to the inspector of prisons' suggestion that such cases ought rather to be taken to the nearest hospital or to the workhouse infirmary than sent to prison. You say that such a course would probably lead to a considerable amount of malingering; that such cases can be equally well, or perhaps better, treated in the prison infirmary under the care of medical officers, who are well accustomed to such cases; and you intimate that, though Dr. Gover's suggestion would undoubtedly lead to a diminution in the prison death-rate, such a result should not be considered to the benefit of the unfortunate prisoners. I cannot think that the writer of your editorial remarks can have given sufficient attention to the report of the Commissioners of Prisons, for he has entirely missed the humanitarian argument conveyed in Dr. Gover's remarks. Take the principal cases, mentioned in the report, of death soon after admission into prison. One, a woman of seventy-nine years, with a sentence of seven days, very infirm and exhausted on reception, who died on the sixth day. Another, a man of sixty-five years, with a sentence of seven days, suffering from advanced heart disease, died a few minutes after admission. Another, a man of thirty-five years, with a sentence of seven days, admitted dying of bronchitis, and who died on the following day. Another, a man of fifty-one years, with a sentence of six months, admitted ill with enlarged liver, died of syncope on the third day. Had these four unfortunate prisoners been examined by police surgeons none of them would have been suspected of malingering, nor would they have been sent to prison. If we think for one moment, no such cruelty should have happened. Because the law demands punishment for offences, does it pay no attention to a dying man or woman? Are such to be sent a journey, of perhaps ten to thirty miles, to die in a prison before even a week has expired? From my experience as surgeon of Canterbury Prison, I am convinced that magistrates should more often take the advice of the police surgeon when a prisoner's body or mind is affected, without considering the trouble of further investigation or the question of expense. I would gladly see an institution which would take up a position between a prison and a lunatic asylum, and would separately treat criminal imbe-

ciles, persons taken up for drunkenness (each conviction with an increased sentence), and prisoners on their first conviction. Such an institution would relieve public lunatic asylums of criminals, prisons from drunkards (not *bonâ-fide* criminals), and enable those on first conviction to be kept from contamination with hardened offenders.

I am, Sirs, yours faithfully,

Nov. 18th, 1889. PUGIN THORNTON.

PAROXYSMAL METHÆMOGLOBINURIA.

To the Editors of THE LANCET.

SIRS,—At the last meeting of the Clinical Society Mr. Barton brought forward a case of what he terms paroxysmal methæmoglobinuria, from the fact that the blood pigment present in the urine during an attack showed the spectroscopic appearances due to methæmoglobin. It seems, however, that this addition to the ordinary nomenclature of the disease is somewhat unnecessary, since it was conclusively shown in a case which was brought before the Medical Society a few months ago by Dr. Bristowe and myself, and which has since been published in THE LANCET, that the pigment excreted was in every instance oxyhæmoglobin, and that the change to methæmoglobin took place during its stay in the bladder under the influence of the acid urine. In addition we found that occasionally acid hæmatin, a further derivative of hæmoglobin, was present; this being noticed when, as sometimes was the case, no urine was voided for four or five hours, or even more, after exposure to cold, so that following on the same lines the case would then have to be called "paroxysmal *hæmatinuria*." That this double change through the stage of methæmoglobin to that of acid hæmatin was really due to the exposure of hæmoglobin to the influence of acid urine at the temperature of the body was proved by experiment in the laboratory, a small quantity of laky blood being added to some of the highly acid urine passed by the patient in the intervals between his attacks. We found also that the breaking down of the blood-corpuscles was due to the direct influence of exposure to cold, as the greater the surface exposed the greater was the blood destruction, and the consequent elimination of pigment in the urine; while in very mild attacks either no pigment appeared at all, its place being taken by albumen, or else that albumen appeared alone at the commencement and end of the attack, a small amount of pigment making its appearance in the acid period. The presence of this albumen, however, was really due to the breaking down of blood-corpuscles, as was shown by the fact that it consisted for the most part of a globulin, doubtless derived from the hæmoglobin, the pigment apparently being disposed of in the body when set free in small quantities only at a time. That the depth of colour of the urine should be greatest when the quantity was least is only what might be expected, supposing that each attack was of similar severity; while the considerable flow of urine after an attack, which was also noticed in our case, appeared to be due to a diuretic action exerted by the hæmoglobin during its elimination by the kidneys.

I am, Sirs, yours faithfully,

York-road, S.E., November, 1889. S. MONCKTON COPEMAN.

SOUTH-WESTERN FEVER HOSPITAL, STOCKWELL.

To the Editors of THE LANCET.

SIRS,—An advertisement recently appeared in your columns offering registered medical men, under stated conditions, opportunities for the clinical observation of the diseases treated in this hospital. In response to that invitation, no one has applied for the appointment of clinical assistant. At the same time, one hears a good deal of a demand on the part of the profession for the admission of students to the fever hospitals for educational purposes. Now the appointment of clinical assistant offers far better opportunity for the clinical study of fevers than would be possible under any well-considered scheme for the admission of students to the practice of this hospital. A three-months' stay in a fever hospital as a post-graduate course surely presents greater advantages educationally than attendance at fever hospitals for special instruction previously to qualification. As I believe the material for study placed at the disposal of the profession by the managers of the Metropolitan Asylums District is not used because it is not generally known that such facilities exist, I trust by your drawing attention to it members of the profession will be induced to apply for these appointments.

I am, Sirs, yours faithfully,

R. A. BIRDWOOD, M.D.,

Stockwell, S.W., Nov. 14th, 1889. Medical Superintendent.

NOTIFICATION OF DISEASES ACT.

To the Editors of THE LANCET.

SIRS,—I have just seen the letter in your issue of the 2nd, signed S. Gourley, on the above subject, urging that the list of infectious diseases to be notified should be extended so as to include contagious venereal diseases. As one of the members of Parliament who opposed this Bill, may I say that Mr. Gourley's desire is fortunately impossible. The Act is strictly limited to infectious disease, and no contagious disease can be brought under it. Certain diseases are mentioned as being under the Act, and any other infectious disease may be added to the list with the joint consent of the local authority and the Local Government Board. But no contagious venereal disease can be included in the list. I have the assurance of Mr. Ritchie himself that it is utterly impossible. A new Act of Parliament would be required, and no one is likely to bring in a Bill for that purpose. If anyone were to do so, he would find he had entered on a hopeless task, and one which would raise a storm of opposition.

I am, Sirs, yours faithfully,

Nov. 14th, 1889. WALTER S. B. M'LAREN.

LIVERPOOL.

(FROM OUR OWN CORRESPONDENT.)

Hospital Sunday and Saturday.

THE annual meeting of the supporters of the Hospital Sunday and Saturday Funds was held on the 8th inst., and the treasurer was enabled to make the gratifying announcement that the total sum realised this year was £300 in excess of that of 1888. But it was short by £2000 of the year 1874, which was a year of prosperity, and marks very clearly that the falling off was due rather to the commercial depression than to any diminished interest in the medical charities. The increase over last year and other circumstances augur favourably for the Hospital Sunday and Saturday of 1890, which will be their twentieth anniversary.

The Royal Southern Hospital.

In accordance with a time-honoured custom, the newly elected mayor (Mr. Thomas Hughes) attended St. Barnabas Church in state last Sunday, when a sermon was preached by the Very Rev. Dean Lefroy, and a collection was made for the Royal Southern Hospital, which is situated near the church, and of which the incumbent is the honorary chaplain. After the service the mayor, accompanied by some of the members of the City Council, visited the hospital, and went through some of the wards. The collection amounted to £133, and several special donations of £10 each were promised for the Nurses' Home.

The Royal Infirmary

The recently adopted rule in the Royal Infirmary, which required all the surgeons to be Fellows of the Royal College of Surgeons of England, has considerably limited the number of candidates, and at the last two elections Mr. Rushton Parker and Mr. F. T. Paul have been allowed a "walk over." But each has fairly earned the distinction, the former by many years' service as assistant surgeon to the infirmary, the latter as having been surgeon to the Royal Southern Hospital for some years past, as well as having held other appointments, including that of resident medical officer to the infirmary. These unopposed appointments possess great advantages in one respect. They save the annoyance—a very serious one both to the candidates and the trustees—of canvassing; and the candidate a very considerable expense in advertising, printing copies of testimonials, &c. The contests of former days, moreover, were not calculated to raise the profession in the estimation of the public.

A Year's Accidents in Liverpool.

The annual report of the Head Constable gives among other items the number of accidents occurring during the past year, with those of nine previous years for comparison. During the year ending Sept. 29th, 1889, there were 2110 accidents, of which 86 were fatal. The police saved 39 lives, and the lives of 265 additional persons were saved by others, illustrating the ready help which bystanders and persons passing render in cases of accident. Of the total number, assistance was rendered by the police in 1540 cases, or 73 per cent., thus showing the large number of accidents which come to the notice of the police, and the importance of their being instructed in ambulance duties.

A Year's Inquests.

The next table gives the numbers and detailed particulars of the inquests held by the city coroner. During the same year there were in all 1333 cases of death referred to the coroner for investigation. In 624 of these he made inquiries, but held no formal inquests, sending information to the registrar. In 709 cases inquests were held, the deceased being 427 males and 282 females. The greater number of males is only what might be expected in a city in which occurs so large a number of accidents to which men are necessarily more liable than women. In 197 cases the deceased were infants of one year and under; in 68 cases they were children of between one and seven years; and in 37 cases the ages ranged from seven to fifteen years. The largest number was that of adults between sixteen and sixty, while in 77 cases the age exceeded this. There were 6 cases of murder, 7 of manslaughter, 38 of suicide, 232 of accidental death, 155 suffocated while in bed with their parents, 23 found drowned, and 10 found dead; excessive drinking, 67; natural causes, 52; disease aggravated by neglect, 8; want, cold, and exposure, &c., 1; and other causes, 53. The large number of what may be called "preventable deaths"—deaths from excessive drinking, children being suffocated in bed with their parents, and deaths from drowning—will be remarked, and suggest very serious reflections for philanthropists and others who labour for the improvement of the condition of the working classes.

Liverpool, Nov. 20th.

MANCHESTER.

(FROM OUR OWN CORRESPONDENT.)

Victoria University.

IN the absence of a suitable room within the College precincts for the ceremony of conferring degrees, the gentlemen's concert-hall was utilised this year for that purpose. A large audience of the general public assembled, and the gallery was given up to the students. Owing to the unseemly noise and horseplay indulged in by the latter, the whole proceedings were, however, conducted in dumb-show from beginning to end. As usual the "medicals" were credited with the larger share in the uproar, which was totally devoid of anything approaching wit or humour, and it is to be hoped that on next degree-day the authorities will take measures to prevent a repetition of what can only be described as disgraceful and senseless behaviour. Twenty-four medical degrees were conferred, three M.D.'s and twenty-one M.B.'s. Amongst the graduates were seven ladies, five of whom took degrees in arts and two in science. At a meeting of the University Court held the same day, on the motion of Professor Morgan, a recommendation from the Council was approved, abolishing the terms "first," "second," and "final," as applied to the examinations for medical degrees, and substituting "preliminary examination in science," "intermediate examination," and "final examination" in lieu thereof. Another matter which led to considerable discussion was a proposal to confer upon such students as should pass certain examinations in technical and commercial subjects, the title of "Associate." To this the old Associates of Owens College strongly demur, as this latter title has now come to have a real value and well-defined status. The proposal was in the end rejected by a large majority, and some other title will have to be found to distinguish those who shall gain certificates in the subjects referred to.

Cremation.

The cremation movement is undoubtedly becoming much nearer to some practical results, here as elsewhere. The annual meeting of the local society was recently held, and it was resolved to approach the Cemeteries Committee of the corporation for the grant of a piece of land upon which a crematorium can be erected; failing this, it is proposed to endeavour to obtain an independent site within a reasonable distance of the city, and, if a capital of £3000 can be obtained, to proceed forthwith to erect the necessary buildings, &c. But to all who have studied this subject it is clear that, if a crematorium can be erected in or adjacent to an already existing cemetery, a great deal of the difficulty in bringing this desirable method of disposing of the dead to the favourable notice of the public at large will be overcome.

Smoke Prevention.

Whether this smoky, murky atmosphere of ours will ever become free from smoke-laden gloom it would be rash to say, but the "Noxious Vapours Abatement Committee" of the Sanitary Association deserves the thanks and support of the entire community for its endeavours to bring about a diminution of the smoke nuisance. At its instigation, a movement is now on foot for promoting an exhibition of all appliances &c. and methods known for the consumption of coal without producing black smoke. A large and very influential meeting was held recently under the chairmanship of Lord Egerton, and the Executive Committee now ask for a guarantee fund of £5000 to carry out their programme, though it is hoped with good reason that the guarantors may not be called upon for any contributions.

Attacks upon Medical Men.

Two rather unusual cases of assaults upon medical men have recently been before the police-courts. In the first, a young man, described as a medical student, violently attacked Mr. C. Kitchen in the public street, the alleged cause being that Mr. Kitchen had some months before, in conjunction with Dr. Braddon, certified that the defendant was of unsound mind. From the evidence given in the case, it was apparent that the prisoner is at the present time scarcely in a condition to be at large, and the magistrate hesitated as to whether he ought not to commit him to an asylum. He was ordered to find sureties of £200, or two months' imprisonment. In the second case, Mr. Ley, medical superintendent of the Prestwich Asylum, was attacked and severely injured, not by a patient, but by one of the attendants whom he had discharged for misconduct. The prisoner was committed for trial at the assizes.

Municipal Matters.

A vacancy having occurred in the City Council, Dr. Henry Simpson has been nominated to fill the vacancy. This nomination is free from all political bias, both parties supporting his candidature. Dr. Simpson has for many years been known as an ardent and practical sanitary reformer, and his presence in the Council at this time, when sanitary matters are so much to the fore, will be most opportune.—Much regret is felt at the recent resignation of Mr. Alderman Schofield as chairman of the Health Committee, over whose deliberations he has presided for nearly twenty years.—In a return recently issued of inquests held here last year, it is stated that 270 were on children under ten years of age, of whom no less than 130 had insurances effected upon their lives. It would be interesting to know what the amount of these insurances was, and the character of the offices in which they were insured.

Nov. 19th.

BIRMINGHAM.

(FROM OUR OWN CORRESPONDENT.)

Queen's College and Durham University.

THE proposed affiliation of the former with the northern University has advanced another stage. On the 19th, a deputation from the governors of Queen's College held a conference at Newcastle-on-Tyne with a deputation from the medical faculty of the University of Durham. A discussion was carried on, in which various suggestions were carefully weighed. The object of the proposed scheme is to enable the students of Queen's College to obtain medical degrees from the University without the necessity which at present exists of residence for a year. The initiative, it appears, was taken by the Durham authorities, who some months ago conveyed an intimation to Dr. Windle, the Professor of Anatomy at Queen's College, who was at the

time one of the Assessors of Anatomy at the University of Durham, that such a proceeding would be favourably considered. Durham University has already two colleges affiliated on the terms desired by Queen's College—namely, Codrington College, Barbadoes, and a college at Sierra Leone. It is hardly likely that any competition will arise from these sources.

The Midland Medical Society.

Before a crowded audience on the 16th inst., Professor W. T. Gairdner gave an address to this Society, the delivery of which was preceded by a conversazione. The attitude taken by Dr. Gairdner was in favour of legislation for the treatment of habitual drunkards, and this was evidently upheld by the meeting, Dr. Wade proposing "that this meeting is strongly in favour of fresh legislation in the direction of compulsory provisions for the detention and treatment of well-defined cases of habitual inebriety, in the interest of the individual and of the community at large." Dr. Norman Kerr stated his belief that no drunkard was irreclaimable, and that, as a result of his observation and experience, there were but few cases in which he did not trace a disease element in the earlier stages.

The Scarlet Fever Epidemic.

The reports on this epidemic are encouraging, the number of fresh cases being on Nov. 16th forty, as against sixty-nine the previous week; the total number of cases in the hospital still stands at 478. With additional accommodation, aided by the advent of colder weather, a still further decline may be expected.

Birmingham, Nov. 21st.

NORTHERN COUNTIES NOTES.

(FROM OUR OWN CORRESPONDENT.)

Newcastle.

THE reverend chairman of the House Committee of the Royal Infirmary has made a statement of a fortnight's surgical work in the wards of the infirmary, which has been printed in our daily newspapers. The work done has been indisputably good, and the motives of the chairman are also above question, and honourable to him, but then the propriety of having these surgical details set forth in a daily paper is another thing, and has called forth some animadversion. We read of "three cases of that very formidable operation called ovariotomy. In this operation the belly is opened, and tumours of greater or less dimensions are opened. As the interior of the lining membrane of the belly is peculiarly liable to inflammation, this operation is a very critical one." It is stated that one of these cases has succumbed, "chiefly in consequence of her being subject to continual vomiting." In another case it is said: "A woman having cancerous sores on the inner surface of the uterus was operated upon. The cancerous matter was scraped off. The woman was too weak to allow the removal of the organ." I hope good taste will prevent these surgical details being again served up with the morning newspaper.—The Vicar of Newcastle, the Rev. Canon Lloyd, has called attention in the School Board meeting to the alarming state of the health of the city. He said "he had been looking at the returns of the twenty-eight largest towns for the last six weeks, and Newcastle headed the list." On Canon Lloyd's representation a motion was carried asking the corporation to appoint a committee to investigate the matter. The worst of these committees is that the reports, however valuable, are too tardy in appearing to have any effect upon the evil complained of. The meteorological conditions may have much to do with the prevalent illness; and if so, it is not to be expected that any health committee can change these conditions. For instance, succeeding a month of unusually heavy rains, with saturation of the soil, we have now a period of unusually high temperature, with a stagnant condition of the atmosphere. The forepart of the day for a long time has been marked by bright sunshine; after sunset we have a raw atmosphere, with much moisture and fogs. Primroses have been seen in flower in some of the gardens in the centre of Newcastle.

Middlesbrough.

The secretary of the North Riding Infirmary, Middlesbrough, has just been informed that, under the will of the late Mr. Joseph Laing, a former mayor of Stockton, who died recently at Barnes, Surrey, the infirmary will receive a legacy of £200.—Dr. Hinshelwood, who has just resigned the resident house surgeoncy, has been presented with a handsome testimonial from the medical staff, and an illuminated address from the governors, bearing testimony to his ability during a faithful service of three years.

Whitby.

Mr. Johnson Herbert, the late medical officer of health for Whitby, has written a forcible letter to the newspapers, complaining of the action of the Whitby Local Board in declining to adopt the notification clause of the Infectious Diseases Act. He thinks that, unless the board is prepared to afford an additional guarantee, as provided by this Act in its compulsory clause, for the benefit of those who come to Whitby in search of health, this favourite and rising watering-place must be prepared to allow visitors to ignore it, and so sink into the condition of a second-rate village.

Newcastle-on-Tyne, Nov. 20th.

EDINBURGH.

(FROM OUR OWN CORRESPONDENT.)

Edinburgh Health Societies.

THIS week the Edinburgh Health Society, the Social Union, and the Social and Sanitary Society have been vieing with one another in working for the common health in the commonwealth. On Saturday night Dr. Woodhead gave a lecture to the Edinburgh Health Society, taking as his subject "Milk and Milk-supply." He spoke of the importance of having an absolute control over the milk-supply of large towns especially, dealt at some length with the subject of milk and disease, showing how readily milk might be the means of spreading infection, and concluded with a number of suggestions for the improvement of the milk-supply of large cities, comparing the somewhat imperfect methods obtaining in this country with those in very general use abroad. The chairman (Lord Kingsburgh), in moving a vote of thanks for the lecture, said that one thing it made clear—that was, that a great deal was yet to be done in the direction of improving the milk-supply as regarded the health and safety of the community. It was also evident that there were other nations that were more alive than we had been in the past to the necessity of great care and organisation in this matter. He believed and hoped that those who supplied them with milk would themselves come to see that it was not only for the interest of humanity but for their own commercial interest that they should help to form the organisation that was necessary. The other societies mentioned have held their annual meetings, and have demonstrated how much well-directed efforts can do to ameliorate the condition of the poor. The members of the Social Union, by acting the part of landlords, decorators, cleaners, and teachers, are doing much to awaken a desire for comfort and cleanliness in the minds of those who could not otherwise be reached; and the Social and Sanitary Society, under the presidency of Lord Kyllachie, sum up their creed in a statement in their report, which runs as follows: "The energetic action of the Health Committee of the Town Council and its convener (Bailie Russell), the burgh engineer, the health officer, and members of the Council, stimulated and sustained by public sentiment, is gradually curing the evils that are amenable to their administration. It must, however, continue to be no small part of this Society's future endeavour systematically and perseveringly to enlighten the poor on sound health principles, by the distribution of the Health Society's leaflets, by co-operating with the Social Union in improving their houses, and generally by promoting their social welfare, by teaching them to help themselves." In commending the Society to the sympathy and support of the public, Mr. John Cooper, the burgh engineer, said he had always regarded the work of the Society as being a most essential improvement for the waste desert places of their city which they called slums. Its effect upon officialism had been for good repeatedly. The ladies could make suggestions of improvements in an encouraging way, and incite people to more hopefulness in their life, which, after all, was the grand secret of improvement anywhere. He pointed out that, while the authorities had condemned many insanitary

houses, a process of subdivision in other houses had been proceeding, causing serious evils.

Queen Victoria Jubilee Institute for Nurses.

At the first annual meeting of the Scottish Branch of the Queen Victoria Jubilee Institute for Nurses, the chairman, Lord Provost Boyd, spoke of the satisfactory progress that had been made during the first year of the existence of the Branch. A home and a well-qualified lady superintendent had been found. The demand for the services of the nurses had been very much in excess of the available supply, and from April 1st to Oct. 31st, 1889, no fewer than 321 cases had been nursed. Other speakers referred to the class of work undertaken by the nurses, amongst whom it was desired that there should be a uniform standard of training, qualification, and work. It was mentioned that it was a requirement of the institute that in large towns the nurses should reside in homes under a qualified superintendent, and nurse their patients under the direction of medical practitioners. While not excluding cases of poor patients able to make some contribution, the services of the nurses must be confined to the poor in their districts, where they should attend to the general health and cleanliness of the abodes in which they are housed. There are now eight district nurses under the control of the superintendent, supplementing the infirmary work and continuing to nurse patients after they had been discharged from that institution, but also nursing continuously other cases where the emergency arises. It was decided that the institute should be recommended to the extended support of the public, and to ask for at least £1000 a year, as far more nurses are wanted throughout the country than can possibly be accommodated in the home at present. Donations are coming in liberally (£1737); but in the form of subscriptions there is as yet, exclusive of the grant from the Queen (£300), only £254, so that there is room for improvement in this direction.

Edinburgh University Court.

At a meeting of the University Court held on Monday, it was reported that under the New Universities (Scotland) Act, 1889, the present University Courts were continued in office till the new Courts under the present Act should be declared by the commissioners to be duly constituted, but without the additional powers conferred thereby, except that of agreeing to the affiliation of new Colleges. A representation by the General Council of the University, to the effect that the professional oral examinations at Edinburgh University should be open to members of all the Scottish University General Councils, was received. Instructions were given that it should be sent to the Senatus for opinion. On consideration of a minute of Senatus, the Court approved of an extra payment of three guineas a day to such of the additional examiners in medicine as were required to act as at the special final examinations in medicine held in October last, with travelling expenses to any of them residing at a distance from Edinburgh. The other business transacted was chiefly in connexion with the recognition of lecturers and class returns. In answer to applications for recognition by the College of State Medicine, London, and Mr. Howden, lecturer on Anatomy in the Newcastle School of Medicine, it was intimated that in neither case was special recognition necessary. Intimation was received from three of the recognised lecturers on medicine in Glasgow that the institution in which they were taught was now called St. Mungo's College.

Scottish Microscopical Society.

The second ordinary meeting of the Scottish Microscopical Society was held on Friday last, under the presidency of Professor Sir William Turner. There was a large attendance, and many new members were proposed and admitted. Mr. George Brook gave a *résumé* and microscopical demonstration of his *Challenger* work on the Antipatharia and Sea Anemones. Dr. G. Sims Woodhead and Mr. R. W. Gray gave a demonstration of the histology of the whale's stomach; Mr. J. C. Purvis, M.B., one on the use of blood-serum as a medium for injection masses; and Mr. Alexander Edington described and exhibited a new inoculating syringe for bacteriological purposes. The whole evening was devoted more to the examination of sections and special preparations than is usually the case at such meetings, and the subjects discussed excited very general interest.

The Weather.

At last the weather-wise have really something to talk about. The early part of November has been extraordinarily mild, and the papers are full of accounts of wonderful roses, dahlias, and other summer flowers, all grown in the open air. It is said that only once during the last thirty-five years has there been any November weather at all approaching that of this month.

New Appointment.

Dr. Berry Hart, late assistant physician to the Simpson Memorial Maternity Hospital, who was recently promoted to the office of physician, is succeeded by R. Milne Murray, M.A., M.B., F.R.C.P. Ed., F.R.S.E., who was yesterday officially appointed by the managers of the hospital.

Edinburgh, Nov. 19th.

IRELAND.

(FROM OUR OWN CORRESPONDENTS.)

DUBLIN.

Kingstown Main Drainage Scheme.

As was expected, the main drainage scheme, which it was proposed to carry out at an estimated cost of £50,000, has been postponed for twelve months, and the probability is that it will be quietly shelved, and that the ratepayers of the premier township will hear no more about the matter. The scheme, if carried out, would have interfered with Sandycove Bathing Place—the best of its kind on the coast,—for in an area comprising nearly twenty square miles the amount of sewage discharged at Sandycove would be so enormous that it would ruin it as a bathing place. It has also been pointed out by a deputation of ratepayers who waited on the Kingstown Commissioners that the sewage would remain in the intercepting sewer for seven hours out of the twelve, while the return of the sewage with the flowing tide would pollute the beach between the East Pier at Kingstown and Sandycove Point.

Rathmines Water-supply.

Rathmines is a populous suburb of Dublin, and its water-supply is obtained from the river Dodder. At a recent meeting one of the Rathmines commissioners condemned in forcible language the water as supplied to the residents, and as a result a panic ensued, as it was believed that some cases of typhoid fever in the township had been due to the water. The commissioners at once requested Sir Charles Cameron and Professor Lapper to analyse specimens of the water to allay the excitement which prevailed. Their reports were favourable as to the quality of the water, but it was nevertheless recommended that the water be filtered. As Sir Charles Cameron points out, filter-beds are indispensable, and to this recommendation few will object; indeed, it is singular that they have not been constructed before this, and the commissioners no doubt will carry out the recommendation without delay.

Surgeonship of Clare County Infirmary.

In the Supreme Court of Judicature, in the Court of Appeal, before the Lord Chancellor and three other judges, last week, an appeal was heard in reference to the surgeonship of this institution. It was an appeal from an order of the Queen's Bench Division, making absolute a conditional order for *quo warranto* setting aside the election of Mr. Hynes to the post of surgeon to Clare Infirmary, on the ground that three of the governors who voted on the occasion were not qualified to vote, two of them being members of Parliament, and the third not having paid his subscription before the vacancy. A preliminary objection was made by counsel on behalf of the respondent, Dr. Faris, to the hearing of the appeal, on the ground that an undertaking had been given by the appellant's counsel not to prosecute an appeal, on the faith of which a fresh election had been held, and on the further ground that the order appealed from was an interlocutory one, and that it was accordingly late. The Court dismissed the appeal on the two preliminary objections raised by the respondent.

Health of Ireland for the September Quarter.

During the quarter ending Sept. 30th the births registered in Ireland numbered 25,966, equal to a rate of 22·0, and the deaths to 17,929, or 15·2. The birth-rate was 1·2 under the average for the corresponding quarter of the past ten years, while the deaths were 0·2 above the average for the same period. The returns of pauperism show a decrease of 915, or 2·2 per cent., in the average number of workhouse inmates on Saturdays during the quarter, and a decrease of 2222, or 3·5

per cent., in the average number on out-door relief. The zymotic death-rate, however, was in excess of the rates for the previous four quarters, a result due to the heavy mortality from diarrhœa in Belfast and Dublin, and the prevalence of typhoid fever in those two districts, and of whooping-cough in portions of the counties of Mayo and Cork. The deaths from typhoid fever numbered 202 against 162 for the preceding three months; of these, 40 deaths occurred in Dublin and 52 in Belfast.

Sir J. T. Banks, K.C.B., has been appointed High Sheriff for Monaghan County, and William Moore, M.D., J.P., has been elected to the same office for Antrim County.

Dublin, Nov. 19th.

BELFAST.

The Ulster Medical Society.

The winter session of the Ulster Medical Society opened on Wednesday, Nov. 6th, when, after a few words from Dr. Burden, whose term of office had expired, the new President, Mr. Andrew McConnell, took the chair and delivered his inaugural address. After thanking the members for the honour they had conferred on him, which he regarded as a compliment to the general practitioners of whom he said he was one, Mr. McConnell gave an interesting account of his experience at the Union Infirmary, of which he is one of the visiting surgeons, and where he has an immense number of patients under his care. He dwelt specially on two sets of maladies not frequently met with in general practice—lock cases and delirium tremens,—and of which he had a very large number of examples in the infirmary. At the conclusion of his address a cordial vote of thanks was passed to Mr. McConnell. Dr. McCaw, the secretary, reported that the special committee appointed to see if something could be done to make the Society more attractive to the members had decided against the formation of a medical club, but had taken steps to enlarge and extend the library. A long and very animated discussion then took place in reference to the Notification of Infectious Diseases Act, and it was finally decided to instruct the secretary of the Society to write to the Public Health Committee of the Corporation asking what was the plan they intended to adopt in carrying out the provisions of the Bill.

Belfast Royal Hospital.

From the report presented at the ninety-seventh annual meeting of this charity, held on Nov. 18th, it appears that during the past year, ending Aug. 31st, 2361 intern patients were treated; of these, 986 were medical and 1375 surgical. In the extern department 26,580 new cases had been treated; of these, 5810 were medical and 20,770 were surgical. The average daily attendance was about 190, and the total attendance for the year in the extern department was about 57,000. The in-door and out-door cases together were 28,941. Clinical instruction had been given in the wards to 136 students during the winter, and to 76 during the summer session. The financial year commenced with a deficit of £381 6*s.* 1*d.*, and terminated with an adverse balance of £1147 10*s.* 7*d.* The total receipts of the year were £9396 10*s.*, and of this £2501 15*s.* 7*d.* had been invested. In general subscriptions during the year there had been an increase, as well as in what was contributed by the working classes; but there had been a deficit in the sums received from church collections and from pay patients. In considering these reports two facts are worthy of notice. In the first place, the great increase in the number of patients treated at the Royal Hospital, and the deficit in the finances. As was stated at the annual meeting, one out of every eight of the inhabitants of the city of Belfast receives treatment at the Royal Hospital. It is quite evident that the present hospital must be enlarged and extended if patients are to go on in this increasing ratio. The lease of the building expires in twenty years, and there is a strong feeling that a new hospital, with all modern improvements, is an absolute necessity for such a rapidly-growing city as Belfast. The late Mr. Campbell has left in the hands of trustees property to the value of £200,000 to found a school or hospital, and efforts have been made to get the trustees (who have almost unlimited powers) to build and endow a new hospital which would be a credit to Belfast.

The Tuberculosis Question.

At the Belfast Police-court, on Nov. 15th, application was made for the destruction of the carcase of a cow affected with tuberculosis. The resident magistrate, Mr. Eaton, who had heard the first of these cases in Belfast, when this case was brought forward said that the borough Act under which this proceeding took place was passed forty-five years ago, before anything was known of the germ theory. If a carcase was then supposed to be unfit for human food the inspector had the right to seize it and bring it before the mayor and any two magistrates, and they, in the exercise of their discretion, could condemn it on view. In the first case which had been brought forward in that court in which the tuberculosis question was involved three or four witnesses of experience had been examined, and would not say that the meat which was the subject of the application was unfit for human food, and the case therefore had been dismissed. In the next case scientific evidence was given that the carcase was unfit for human food, placing it on a different footing from the previous one. Dr. M'Gee, who was evidently qualified to pronounce an opinion, had come to the conclusion—and his brother magistrates concurred—that the carcase was bad. He (Mr. Eaton) entertained a strong opinion on the subject. He was not by any means satisfied that the disease was communicable—although the preponderance of public opinion might say that it was. If so, the measures for stamping out the disease were totally inadequate. He thought the matter was one for legislation, and some arrangement ought to be made whereby the owners of the carcases could be compensated. One of the other magistrates (Dr. McGee) said the matter of compensating owners was altogether outside their province. The magistrates then retired and examined the carcase, and on their return (Mr. Eaton having retired) an inspector gave evidence as to the seizure of the meat, and Dr. Torrens stated that it was unfit for human food. The Bench made an order for the destruction of the carcase, Dr. McGee remarking that it was one of the worst cases he had ever seen.

Belfast, Nov. 19th.

PARIS.

(FROM OUR OWN CORRESPONDENT.)

The Hygienic Uses of the Sabbath.

AMONG the questions treated of at the recent Congresses, that of the observance of the Sabbath as a day of rest was not the least interesting. The Congress on this subject was presided over by M. Léon Say, who remarked that this rest, which several religions rendered obligatory, is a law of nature, and consequently a law of hygiene, the excellence of which has long been demonstrated, although it is not to be found in all national codes. The resting on the seventh day is of Biblical origin, and the custom of counting the days by seven was formerly the rule among the most diverse races—in India as among the Celts, in China as well as in Arabia. Now that hygiene has become a positive science, it confirms the moral and material necessity for a temporary rest on the seventh day. The idea was adopted in principle by all the members of the Congress, which received the patronage of two political celebrities—Mr. Harrison, President of the United States of America, and Mr. Gladstone. In a letter which was read publicly, President Harrison declared that he considered that all workers, whether with the hands or with the head, were in need of rest, which alone can guarantee the general observance of the Sabbath. Mr. Gladstone declared that he attributed his robust health and his longevity to his invariable observance of the Sabbath rest. Several reports were presented to the Congress, and physicians, professors, philosophers, and hygienists are in accord on this point. All, without exception, support for workers of all classes and of all ages a weekly day of rest, which should even be made obligatory. I may here note that in 1881 this subject was opened to competition by the Swiss Government for a prize, which was awarded to Dr. Niemeyer of Leipsic. The subject was brilliantly treated by Dr. Niemeyer, who observed that the Dominical rest is the first commandment of hygiene, which should be followed to obtain a peaceful and continued amelioration of society, and in this respect it is as much a rational institution as a religious one. The following is the summary of the conclusions voted by the great majority of the members of the Congress:—"Rest on Sunday is possible in varying degrees

in all industries. Sunday is the day which best suits the employer and employed, both as regards the individual himself and his family, and it is well that the day of rest should be, as much as possible, the same for all. When the Sunday rest is impracticable for certain reasons, it should be replaced by some other day, so that the workman may have fifty-two days' rest in the year as equally divided as possible. This rest permits man to produce considerably more and better work, inasmuch as it contributes to maintain his zeal and to restore his physical forces."

Cold Baths for Typhoid.

At a recent meeting of the Société Médicale des Hôpitaux, a discussion took place on the efficacy or otherwise of cold baths in the treatment of typhoid fever. Dr. Josias communicated a report of cases of typhoid fever which he had occasion to treat by this method during the years 1888 and 1889. Of thirty-six cases he had only one death, or 2·77 per cent. Other members spoke in favourable terms of the treatment, and Dr. Chauffard also approved of Brand's method, but remarked that the formula of this author was insufficient in grave cases. One member observed that when there are several cases of typhoid fever in the same hospital it will be almost impossible to carry out the method in all its details as it would take an army of nurses to attend to the patients. Dr. Gaucher remarked that during the same period that Dr. Josias attended his typhoid patients as noted above, he treated sixteen patients suffering from the same disease, and although in the same locality and consequently in the same epidemic conditions, he did not lose one of them. A seventeenth patient, whose case was considered hopeless, was submitted to the cold baths, and died; but as Dr. Gaucher observes, this cannot be placed to the account of the baths, as the patient was in a dying state when he took them, but the other sixteen patients that he treated with mild purgatives and enemata without the cold baths were all cured.

Pure Air in Bedrooms.

At the last meeting of the Academy of Medicine, Dr. Nicaise read a note on the necessity for a person, whether sick or not, breathing pure air in his bedroom, day and night; and this applies more particularly to patients suffering pulmonary phthisis or other chronic affections. It was thought that by increasing the cubic space of a closed room this result would be obtained, but it has been found that the air always remains vitiated. To remedy this evil, Dr. Nicaise recommends permanent ventilation of the room by leaving the window ajar, and by other arrangements which will secure the object. A bedroom, he says, should never smell stuffy when opened in the morning, as is commonly the case, and if it be cold a fire should be kept up in the room, which would rather contribute to the ventilation than otherwise.

Ambulances for Infectious Diseases.

The Paris Municipal Council have decided upon the creation of two stations of ambulances for the conveyance of patients affected with contagious maladies. These stations are communicated with by telegraph and telephone. As soon as application is made, an ambulance carriage, specially constructed for every description of infectious disease, conveys a hospital official immediately to the residence of the patient, who, however, is not removed without a certificate from the physician in attendance. After each trip the carriages and horses, as well as the nurses and coachmen, are thoroughly disinfected. By this means the public cabs will gradually cease to convey patients suffering from contagious diseases.

The late Dr. Ricord.

Among the legacies left by Dr. Ricord, the following may be noticed: To the Academy of Medicine of Paris 10,000 francs, the object of which is to found with the interest a biennial prize in the name of the testator; to the Société de Chirurgie 5000 francs for founding a biennial prize; to the Association Générale des Médecins de France 10,000 francs; to the Hôpital du Midi his extensive library as a token of gratitude and as a souvenir of his twenty-nine years' service at that hospital. The Hôpital du Midi is henceforward to bear the name of Ricord.

British Doctors in France.

The Minister of Foreign Affairs has informed the British Government that no British medical man will, save in very exceptional cases, be authorised to present himself at the examinations for the Doctorate or the diploma of Officier de Santé of this country. The reason assigned for this restriction is that the Commission appointed to inquire into the matter have judged that the British diploma, not being delivered exclusively, as is done in France, by the State, the British Government did not exercise a sufficient supervision on the subjects and the programmes of teaching.

Paris, Nov. 19th, 1889.

BERLIN.

(FROM OUR OWN CORRESPONDENT.)

An Autobiography of Franz Cornelius Donders.

PROFESSOR ZEHENDER of Rastock has published an autobiography left by the late famous physiologist and oculist Franz Cornelius Donders. When he went to the University, he tells us, he knew little of Latin literature and absolutely nothing of Greek. He became a professor at twenty-four, "Professor *à la suite*"—i.e., one who had to fill up gaps left by the other professors. Thus it happened that he had to treat no fewer than six subjects in his lectures: normal and pathological anatomy, histology, anthropology, medical jurisprudence, and ophthalmology. In those first years as professor he lived entirely with the students. His selection of practical ophthalmology from this wide circle of studies was almost accidental. What he taught at that time was not exactly ophthalmology, but rather physiological optics, and he taught it so well that his friends earnestly advised him to devote himself to practical ophthalmology. It was a doctor from Cape Colony, named Dr. van der Bije, who induced him to go to London in 1851 to study under Bowman and Guthrie. At Gutbrie's house he made the acquaintance of Albrecht von Graefe, who was then studying in London. Furnished with letters from Graefe, he went from London to Paris to study under Sichel and Desmarres. In 1851, just a quarter of a year after Helmholtz had invented the ophthalmoscope, Donders began practice as an oculist in Utrecht. It was partly necessity that, happily for mankind, drove him to take this step, for his salary as professor was too small for the support of his family. He continued his practice till 1862, when he got a better kind of professorship as Van der Kolk's successor. This autobiography, which is the only recent one of its kind except that of Arlt of Vienna, contains references to many interesting persons with whom Donders came into contact—Moleschott, Muller, Simpson, Nagel, Friedrich von Jaeger, Claude Bernard, Brown-Séquard, Lebert, and others.

School Hygiene.

In a country like Germany, in which the art of education is supposed to be so well understood, and in which undoubtedly medical science is far advanced, one might expect that the perfection of sanitary arrangements would be found in schools. If this is not the case the fact is partly due to the circumstance that pedagogues and physicians have not generally seen eye to eye hitherto; each class unfortunately but naturally tending to take a one-sided view of the matter. So much the more welcome is the appearance of the first instalment of a work on school hygiene by Privy Councillor of Medicine Dr. Eulenburg and Dr. Bach, headmaster of one of the so-called "Realgymnasien," or non-classical high schools of Berlin. Both are known as authorities, each in his department, and they have undertaken to discuss all the questions of the subject hand-in-hand in a strictly scientific, but at the same time easily intelligible, manner. The work is to come out in six or eight parts with numerous illustrations. The first part, which has already appeared, contains an excellent history of the development of school education, and a discussion of the fundamental question of school buildings. The historical section is enriched by an admirable statistical comparison of the present results of school hygiene in various countries.

Mother-of-pearl Ostitis.

At a recent meeting of the Berlin Medical Society, Dr. Levy introduced three young men, aged between twenty and thirty, who were suffering from a rare bone disease. They had worked for several years in a mother-of-pearl factory here, and had thereby contracted ostitis, which had resulted in the thickening of several bones. In one the right side of the upper jaw was so thickened that one could hardly introduce the finger between it and the cheek; in another, first, the shoulder blade, then the

clavicle, and, finally, the right thigh-bone; and in the third the middle bones of the hands and feet showed similar alterations. As soon as they left their work the disease began to disappear, and returned when they resumed it. This quite peculiar bone disease has been described only in twenty-five cases before, all in Vienna, where Professors Englisch and Gussenbauer were the first to draw attention to it. It is called "ostitis of workers in mother-of-pearl." Professor Gussenbauer's explanation of the disease is that the very large molecules of the organic ingredient in mother-of-pearl dust enter blood through the lungs, and accumulate in the narrow arteries at the ends of the bones.

Berlin, Nov. 12th.

THE SERVICES.

THE BURMAH CAMPAIGN.

THE *London Gazette* of the 15th inst. publishes for general information the official correspondence and despatches relating to the recent operations in Upper Burmah. Major-General Sir George White, K.C.B., V.C., late commanding the Upper Burmah Force, in his list of general and other officers who rendered specially valuable service during the operations, thus alludes to the following medical officer:—"Surgeon I. P. Doyle, I.M.D. (Madras), distinguished himself much by personal courage and care of the sick. On Dec. 9th, 1888, he was twice wounded. On Jan. 1st, 1889, during the withdrawal from Kan to Gangaw, he again distinguished himself; and it is greatly in consequence of his courage and bearing that the wounded got safely into Gangaw. I commend this officer very specially to the consideration of his Excellency the Commander-in-Chief. The following officers have also well earned mention for service in the Chin Hills:—Surgeon-Major A. B. Strahan, 44th Gúrkha Light Infantry; Surgeon F. A. Rogers, 42nd Gúrkha Light Infantry; Surgeon W. H. B. Robinson, Indian Medical Service, Bengal. For specially valuable service with the Mogaung Field Force, Surgeon C. S. Cronin, Medical Staff, has also earned mention by his devotion to duty and care of the wounded. I have made the gallant conduct of Surgeon J. Crimmin, I.M.S., with the Karenni Field Force, the subject of a special report and recommendation. Some of the foregoing officers have already received mention in our columns as being the recipients of special honours for services rendered in Burmah." We now reproduce the names and records as they appear officially in the *Gazette*.

ARMY MEDICAL STAFF. — Brigade Surgeon William Temple, V.C., M.B., has been granted retired pay (dated Nov. 7th, 1889); Surgeon James Rose has retired on temporary half pay on account of ill-health (dated Nov. 7th, 1889).

INDIAN MEDICAL SERVICE.—The Queen has approved of the retirement of the undermentioned officers:—Deputy Surgeon-General William Walker, M.D., Bengal Medical Establishment (dated Oct. 31st, 1889); Brigade Surgeon Edward Sexton, M.D., Bombay Medical Establishment, (dated Oct. 1st, 1889); Surgeon-Major John Robb, M.D., Bombay Medical Establishment (dated Nov. 2nd, 1889).

ADMIRALTY.—In accordance with the provisions of Her Majesty's Order in Council of April 1st, 1881, Surgeon Andrew Dillon Peyton has been placed on the Retired List of his rank, with a gratuity; Surgeon Justin Foley Donovan, M.D., has been allowed to withdraw from Her Majesty's Naval Service, with a gratuity.

The following appointment has been made:—Staff Surgeon Thos. E. H. Williams to the *Sultan* (dated Nov. 14th, 1889).

VOLUNTEER CORPS. — *Artillery:* 1st London (City of London): The services of Surgeon F. W. H. Ramsay, M.D., are dispensed with (dated Nov. 16th, 1889).—*Rifle:* 1st Volunteer Battalion, the Highland Light Infantry: Acting Surgeon H. St. Clair-Gray, M.D., to be Surgeon (dated Nov. 16th, 1889). — *Infantry:* The Staffordshire Brigade: Surgeon-Major Frederick E. Manby, 3rd Volunteer Battalion, the South Staffordshire Regiment, to be Brigade Surgeon, ranking as Lieutenant-Colonel (dated Nov. 16th, 1889).

THE Merchant Taylors' Company has granted the sum of twenty guineas in aid of the funds of the National Association for Supplying Female Medical Aid to the Women of India.

Obituary.

HAYNES WALTON, F.R.C.S.

MR. HAYNES WALTON died at his house in Brook-street, Hanover-square, on Nov. 7th. He suffered from an obscure affection of the liver, which we understand was never diagnosed. Mr. Haynes Walton was born in the island of Barbadoes on March 3rd, 1816. He was the son of Mr. John Walton, who held the office of provost marshal of that island. When young Walton was but ten years old he lost his father. Shortly after he was left fatherless he came to London, and in a few years entered himself as a student at St. Bartholomew's Hospital. There, by his hard work and energy, he attracted the attention of Sir William Lawrence, who spoke very highly of him. In 1851 Mr. Haynes Walton was appointed assistant surgeon to St. Mary's Hospital—an office which at that hospital he was one of the first to hold. About the same time he started the Central London Ophthalmic Hospital in Gray's Inn-road. He continued his connexion with that special hospital until he was appointed ophthalmic surgeon to St. Mary's Hospital. Conjointly with that post he discharged the duties of his office of surgeon to the Hospital. The pressure upon his time was thus so considerable that he had to relinquish his special work in the Gray's Inn-road. He was one of the medical advisers of the London, Brighton, and South Coast Railway. He was the author of a large work on ophthalmic surgery, and the article on "Operative Surgery" in Druitt's book was from Mr. Haynes Walton's pen. He contributed frequent articles to various medical periodicals, and had expressed in some of them certain original views concerning the coagulation of the blood. He was very fond of horse exercise, and his was a well-known figure in the hunting-field at the meets of the Queen's hounds. Until very recently he was to be seen almost daily riding in the Row or elsewhere in the vicinity of London. He married first a daughter of the Hon. J. G. Reed, of New Court, Gloucestershire. By her he had ten children, of whom only three survive—two sons and one daughter. His first wife died eleven years ago. Seven years since he married a daughter of Dr. Keelan, R.N., who survives him.

GAETANO LA LOGGIA.

ON the morning of the 9th inst., in his native town of Palermo, died Senator Gaetano la Loggia, a physician of rare accomplishment (particularly in mental diseases), a publicist whose services to his country were important enough to be historical.

Born in 1808, he gave early indication of the able and independent mind that characterised him as a professional man and as a citizen, and while yet at the threshold of his studies his sense of his country's political degradation induced him to become a conspirator of the *Carbonari*. At twenty-one he graduated as Doctor of Medicine, and shortly thereafter the University of Palermo secured his services for the chair of Physiology, vacated by the brilliant Foderà. In this post he laboured hard to keep the Palermitan school abreast of contemporary science, while all the time he strove to awaken the Sicilian youth to a nobler public life than the Bourbon despotism made possible for them. He was the first Sicilian to enrol himself in the ranks of Young Italy, and was in frequent and confidential correspondence with Mazzini. When the revolution of 1848 broke out he took a prominent part in its military organisation, and while more particularly employed on sanitary duty, he lent it what aid he could as a combatant. When the movement was suppressed he went into exile, and in 1850 was in Turin, then the asylum of expatriated Italians like himself, and by the influence of Cavour was appointed Lecturer on Biology in the University. From this post he continued to feed the flame of independence in his native island, and found his way back to Palermo in 1858, when he set himself, with characteristic energy, to promote the revolution. He it was who had the chief hand in addressing to Victor Emmanuel the invitation to become King of Sicily, and concurrently with this movement he collected the money and the arms required for the attempt that failed, though not ingloriously, on April 4th, 1860. On May 27th, the General Committee of the revolu-

tion having been constituted, he was entrusted with the administration of the Interior, and thereafter became Director-in-Chief of the Sanitary Department in Sicily. These appointments he owed to Garibaldi, on the recommendation of Signor Crispi, with whom, in the Provisional Government that preceded the absorption of the island into United Italy, he acted as colleague, filling successively the posts of Minister of the Interior, Minister of Public Works, Minister of Public Instruction, and, finally, Minister of Foreign Affairs. When the plébiscite was taken by which the Sicilians declared their wish to be the subjects of King Victor Emmanuel, he was one of the Commission charged with the presentation of the vote to his Majesty. His country's independence as an integral part of the Italian kingdom being secured, he resumed his scientific studies, and rapidly acquired the confidence, as a consultant, of a large *clientèle*, not only in Palermo, but throughout the island. He published memoirs of much originality and soundness on mental disease and, in recognition of his skill in that department of medicine, was appointed director of the Manicomio (lunatic asylum) of Palermo. For more than twenty years he sat on the communal and provincial council of his native city, and always took the lead of the progressist and democratic party. No Liberal meeting reckoned itself complete without his presence, while he held high office in Sicilian Freemasonry, of which, indeed, he was for some time Grand Master. To quote from the organ of his old friend and colleague (now the Italian Premier), Signor Crispi, "he was of an adamantine character, always equal to himself, studious, free from all prejudice, and independent of all cliques, liberal in every sense, and passionately devoted to Italy and to his beloved Sicily."

His death, though for some time apprehended, came suddenly, as the result of an intestinal complication, and threw all Palermo into mourning. The chief public buildings hung out the flag of Italy fringed with crape, and all business, civic and commercial, was suspended for the day. His funeral, on the 10th inst., was attended by the municipality, by the Senatus Academicus, and by the leading representatives of the city and province.

Medical News.

ROYAL COLLEGE OF SURGEONS OF ENGLAND.—The following gentlemen passed the First Professional Examination for the diploma of Fellow at a meeting of the Board of Examiners on the 13th inst.:—

H. B. Wilkinson and G. T. S. Sichel, students of Guy's Hospital; J. H. Pringle, of Edinburgh and University College; F. J. Rawlinson, of St. Bartholomew's Hospital; A. A. Parry and J. S. Thomson, of Melbourne; H. Burden, of St. Thomas's Hospital; G. L. Cheatle, of King's College. (Eight candidates were referred.)

Passed on the 14th inst.:—

H. L. Brownlow and T. L. Paget, of St. Bartholomew's Hospital; C. J. Martin, of St. Thomas's Hospital; and H. Simpson, of Cambridge and St. Thomas's. (Eight candidates were referred.)

ROYAL COLLEGE OF SURGEONS IN IRELAND.—At the Preliminary Examination held on the 13th inst. the following were granted certificates:—

J. Abraham, G. H. Ayres, J. T. Armstrong, J. D. Begley, H. H. Carter, H. G. Dawson, J. J. Dolan, J. English, S. Glenny, R. P. Hayes, E. B. Kelly, W. L. Martin, J. G. Morgan, H. Schlegel, and C. R. Tichborne.

The undernamed were granted additional certificates in Physics:—

G. H. Ayres, R. C. Boland, A. W. Bowen, O. H. Butt, C. S. Cahill, T. H. Clarke, M. A. Corcoran, H. G. Dawson, J. J. Dolan, J. English, P. Good, R. P. Hayes, A. Lavertine, H. S. Laird, H. McAvory, A. McCann, W. L. Martin, J. C. Morgan, F. Nolans, W. L. Norwood, J. R. O'Brien, and A. C. Seale.

COLLEGE OF PHYSICIANS IN IRELAND.—At the November Examinations the following gentleman obtained the Licences in Medicine and Midwifery of the College:—

John Welby Haughton.

THE LAWS OF FOOTBALL.—The committee of the Irish Football Association have suspended two members of the Linfield Athletic Football Club, one for a year and the other for two months, for rough play in the recent Irish Cup tie with Belfast Cliftonville. The same club was censured recently by the English Association for its rough play.

UNIVERSITY COLLEGE HOSPITAL.—On behalf of the rebuilding fund of this hospital the Irving Amateur Dramatic Club will give an entertainment at St. George's Hall, Langham-place, W., on Thursday evening, Dec. 12th.

BREAD-MAKING.—On Monday next a series of Cantor Lectures on "The Modern Developments of Bread-making" will be commenced at the Society of Arts by Mr. William Jago.

ROYAL SOCIETY.—A Royal Medal has been awarded to Dr. W. H. Gaskell, F.R.S., for his researches in cardiac physiology, and his important discoveries in the anatomy and physiology of the sympathetic nervous system.

MEDICINE AND POLITICS IN RUSSIA.—Sixteen students in the Military Academy of Medicine in St. Petersburg have been expelled from that establishment for the expression of practical sympathy with a deceased Nihilist writer.

LITERARY INTELLIGENCE.—Mr. H. K. Lewis announces the publication on December 2nd of an important work in two volumes by Professor Edgar Crookshank, entitled the "History and Pathology of Vaccination." It will be illustrated with twenty-two coloured plates and other engravings.

BROCKWELL PARK, SOUTH LAMBETH.—The vestry of St. Giles, Camberwell, has agreed (subject to the necessary Parliamentary powers being obtained) to contribute £6000 towards the purchase of Brockwell Park, for the use of the public as a recreation ground. It appears that £2500 only remains to be contributed to complete the amount of the purchase money.

FOOTBALL ACCIDENTS.—A young man named Cartwright, during a football match at Dorchester, on Saturday, between the Dorchester and Poole Clubs, badly fractured his leg at the knee.—A youth named Meredith, whilst playing in a football match at Bootle, on the 9th inst., and running with the ball, tripped and fell, death supervening on the following Wednesday from shock to the brain and spinal cord.

A SUPPOSED SHOOTING OUTRAGE.—It was reported early in the week that Dr. Hector Allan of Whaley Bridge, near Stockport, medical officer of health and public vaccinator, had been fired at three times, narrowly escaping injury. No motive could be assigned for the outrage, which appeared to be inexplicable. A later telegram states that the mysterious shooting had been traced to four boys, who were "playing Jack Sheppard" with revolvers.

THE INFIRMARY NURSES' HOME, BRISTOL.—The erection of this Home, in Terrell-street, Bristol, is nearing its completion. The committee intend to open it on Jan. 1st next. It is designed as a home for nurses connected with the infirmary. It will afford accommodation for twenty-six nurses. Each nurse will have a room to herself. The building will be known as the Bristol Royal Infirmary Nurses' Home and Institute, and may, as occasion requires, be utilised by other nurses engaged privately.

UNIVERSITY OF CAMBRIDGE.—The following are the dates of the examinations for medical and surgical degrees during the Michaelmas term, 1889:—First examination for M.B. and B.C.: Dec. 3rd, 4th, 6th, 9th, 10th, 11th. Second examination for M.B. and B.C.: Dec. 3rd, 9th, 10th, 11th, 12th, 13th. Third examination for M.B. and B.C.: Part 1, Dec. 10th, 13th, 14th, 16th; Part 2, Dec. 11th, 12th, 16th, 17th, 18th. Examination for M.C.: Dec. 13th, 14th, 16th.

THE MUZZLING QUESTION.—A public meeting of anti-vivisectionists and anti-muzzlers is announced for Monday next, at 8 P.M., at the Westminster Palace Hotel, in favour of the abolition of the muzzling regulations now in force in London with a view to the eradication of rabies. The Executive Committee of the Society for the Prevention of Hydrophobia, on the other hand, intend to move an amendment antagonistic to the purposes of the meeting, and the committee earnestly appeal to all who understand the great value of the present muzzling regulations to be present to aid the committee in carrying the amendment, and thus help in the final and successful extirpation of hydrophobia.

RABIES.—The number of dogs in England officially reported during the week ending Nov. 9th as affected with rabies was four, against nine in the previous week. Of these, three were killed and one died. The distribution was as follows:—London and Suffolk, one each, and York (West Riding), two.

NOTIFICATION OF INFECTIOUS DISEASES.—At the last meeting of the Tendring Hundred Rural Sanitary Authority on Oct. 30th it was unanimously resolved to adopt the Infectious Diseases Notification Act, 1889, and that it should come in force on Jan. 1st, 1890, in that district.—The Darlington Town Council have decided to put the provisions of the Infectious Diseases (Notification) Act, 1889, in force in the borough, and to apply for the inclusion of measles in the list of diseases to be notified, on account of its prevalence and fatality amongst school children. For the same reason it was suggested that whooping-cough should also be added to the list, but this suggestion was not favourably received.

CAVENDISH COLLEGE, CAMBRIDGE.—On Saturday last Lord Hartington opened the new buildings of Cavendish College, which consist of a fine and spacious hall, cloisters, kitchen, and other offices, recently erected at the cost of the Duke of Devonshire and Mr. G. E. Foster, the well-known Cambridge banker. There was a large and distinguished gathering of members of the aristocracy and of the medical and other professions. Amongst the speakers were Sir Andrew Clark, Bart., Sir James Paget, Bart., Sir Henry Roscoe, and Professor Humphry, all of whom laid stress upon the educational advantages offered by Cavendish College—the characteristic features of which were its economy and the early age of entry—to those students who might otherwise be debarred from the benefits attaching to a University training.

BEQUESTS AND DONATIONS TO HOSPITALS.—The late Miss Hadfield Ray, a Yorkshire lady, has left £1000 to the British Benevolent Fund.—By the will of Miss Sabina Robinson, late of Upper Norwood, legacies are left of £100 each to the Royal Hospital for Incurables, Putney, and the London Fever Hospital, Liverpool-road, Islington.—The Mayor of Cardiff (Mr. Alderman Sanders) has sent a donation of 50 guineas to the Glamorganshire and Monmouthshire Infirmary.—A concert on behalf of the Children's Hospital, Birmingham, given on the 26th ult. by the Severn-street Harmonic Society, produced £49.—The late Alderman R. Gregg of Chester bequeathed £200 to the Chester Infirmary.—Mr. Alderman J. G. W. Willows, late of Woodfield House, Southfields, Hessle, Yorkshire, left by his will £100 to the Hull General Infirmary, and £50 to the Hull and Sculcoates Infirmary.

Appointments.

Successful applicants for Vacancies, Secretaries of Public Institutions, and others possessing information suitable for this column are invited to forward it to THE LANCET *Office, directed to the Sub-Editor, not later than 9 o'clock on the Thursday morning of each week for publication in the next number.*

BATELY, JOHN, M.D.Dur., M.R.C.S., L.S.A., has been reappointed Surgeon of Police, Gorleston District, Yarmouth.

BERGIN, G. F., M.R.C.S., L.R.C.P., has been appointed Assistant Physician to the Bristol General Hospital, vice H. Hill, M.R.C.S., L.R.C.P., resigned.

CONNOR, WM. G., L.R.C.S.Irel., L.K.Q.C.P., L.M., has been appointed Medical Officer and Public Vaccinator to the Earl Soham District, Plumsgate Union, and Bedfield District of the Hoxne Union.

DONALDSON, WM. IRELAND, B.A., M.B., B.Ch. Univ. Dub., has been appointed Senior Assistant Medical Officer to the Camberwell House Lunatic Asylum, London, S.E., vice Chas. J. Dabbs, M.R.C.S., resigned.

EVANS, WILLIAM, L.R.C.P. Edin., M.R.C.S., has been reappointed Medical Officer of Anglesey Rural Sanitary Districts of the Anglesey and Holyhead Unions, and Beaumaris and Holyhead Urban Sanitary Districts.

HUDSON, T. J., M.D., has been appointed Medical Referee to the Gresham Life Assurance Society, and to the Health Insurance Corporation for Leeds and District.

LAIT, WILLIAM, M.R.C.S., L.S.A., has been appointed Medical Officer to the Workhouse Infirmary, Torrington Union.

LETTIS, THOMAS, M.R.C.S., L.S.A., has been reappointed Surgeon of Police Force, Yarmouth District.

MAC LEOD, HAROLD HAY BRODIE, L.R.C.P. Lond., M.R.C.S., L.S.A., has been appointed House Surgeon to the Salop Infirmary, vice J. F. Harries, resigned.

MILLER, G. VICTOR, M.B., C.M. Edin., has been appointed House Surgeon to the North Riding Infirmary, Middlesbrough, vice Hinshelwood, resigned.

PAUL, F. T., F.R.C.S., has been appointed Surgeon to the Liverpool Royal Infirmary, vice Reginald Harrison, F.R.C.S., resigned.

SAUNDERS, A. M., M.A., M.B., C.M., D.P.H. Aber., has been appointed Medical Officer of the Birsay, Harray, and Sandwick Medical Aid Association, Orkney.

THOMAS, ALFRED, L.R.C.P., L.R.C.S. Edin., Assistant Medical Officer to the Walton Workhouse, Liverpool, has been appointed Medical Officer to the West Derby Union Cottage Homes, Fazakerley.

WEBSTER, G. L., M.R.C.S., L.S.A., has been reappointed Medical Officer for Bewdley Borough.

WILSON, T. STACEY, M.B. & C.M. Edin., M.R.C.P. Lond., has been appointed Assistant Physician to the Birmingham General Hospital, vice Arthur Foxwell, M.B., M.R.C.P., resigned.

Vacancies.

For further information regarding each vacancy reference should be made to the advertisement.

ANCOATS HOSPITAL, Manchester.—Junior Resident House Surgeon (also visiting home patients in a prescribed district). Salary £60 per annum, with board, residence, and laundry service.

ATKINSON MORLEY'S CONVALESCENT HOSPITAL, Copse-hill, Wimbledon. Resident Medical Officer. Salary at the rate of £150 a year, with board and residence in the hospital.

GENERAL HOSPITAL FOR SICK CHILDREN, Pendlebury, Manchester.—Junior Resident Medical Officer. Salary £80, with board and lodging.

HALIFAX INFIRMARY AND DISPENSARY, Halifax. — Senior House Surgeon. Salary £80 per annum, advancing to £100, with residence, board, and washing. Also Assistant House Surgeon. Salary £50 per annum, with residence, board, and washing.

JOINT COUNTIES ASYLUM, Carmarthen.—Junior Assistant Medical Officer. Salary £100 per annum, with board, apartments, attendance, and washing.

LEEDS BOROUGH HOSPITALS.—Resident Medical Officer of the Borough Hospitals. Salary £150 per annum, with board and residence.

LONDON HOSPITAL, Whitechapel-road, E. — Surgical Registrarship. Salary £100 a year.

MIDDLESEX HOSPITAL.—Surgical Registrar.

NORTH-WEST LONDON HOSPITAL, Kentish Town-road.—Assistant Physician.

PINXTON COLLIERIES, near Alfreton, Derbyshire.—Resident Surgeon. Stipend £300 per annum, with large house and stabling at a nominal rent; private practice allowed.

ST. GEORGE'S HOSPITAL.—Lecturer on Dental Surgery.

SUSSEX COUNTY HOSPITAL, Brighton.—Surgeon and Assistant Surgeon. Also House Physician and Assistant House Surgeon. Salary of House Physician £60, rising to £80 per annum, with residence and board in the hospital, and washing. The Assistant House Surgeon is provided with board, residence, and washing, but no salary given.

WEST-END HOSPITAL FOR DISEASES OF THE NERVOUS SYSTEM, 73, Welbeck-street, London, W.—Surgeon.

WOLVERHAMPTON AND STAFFORDSHIRE GENERAL HOSPITAL, Wolverhampton.—Resident Assistant for six months. Board, lodging, and washing provided.

Births, Marriages, and Deaths.

BIRTHS.

BATTEN.—On Nov. 16th, at Notting-hill-square, W., the wife of Rayner D. Batten, M.D. Lond., of a son.

CATON.—On Nov. 19th, at Rodney-street, Liverpool, the wife of Richard Caton, M.D., of a daughter.

HOOD.—On Nov. 16th, at Green-street, Park-lane, the wife of Donald W. C. Hood, M.D., of a daughter.

MCGACHEN.—On Nov. 17th, at The Gables, Bletchley, the wife of F. W. D. McGachen, surgeon, of a daughter.

MORGAN.—On Nov. 14th, at Mount Pleasant, Liverpool, the wife of Llewellyn Arthur Morgan, M.D., of a son.

MYDDELTON-GAVEY.—On Nov. 15th, at Brooks Hall, Ipswich, the wife of E. H. Myddelton-Gavey, M.R.C.S. Eng., of a daughter.

PHIPPS.—On Nov. 17th, at Guildford, the wife of Surgeon R. V. A. Phipps, Army Medical Staff, of a son.

THOMPSON.—On Nov. 9th, at Wellington-crescent, Ramsgate, the wife of Surgeon-Major S. J. Thompson, of a daughter.

WILKIN.—On Nov. 10th, at Hyde-park-street, W., the wife of G. Charles Wilkin, M.R.C.S., of a son.

MARRIAGES.

BALY—THORLEY.—On Nov. 16th, by licence, at St. Michael's, Heavitree, Ernest Baly, surgeon, youngest son of William Baly, F.R.A.M., to Frances Elizabeth Anne (Lil), eldest daughter of Joseph Thorley, late of Wells, Somerset.

HAGYARD—BLAKENEY.—On Nov. 13th, at Holy Trinity, Hull, Robert Hagyard, surgeon, Wright-street, Hull, to Julia Mary, elder daughter of J. W. Blakeney, Newington, Hull.

JONES—MORROW.—On Oct. 30th, at St. Stephen's Church, Halifax, Nova Scotia, by the Rev. H. G. Lancaster, Bishop's Chaplain, Guy Carleton Jones, M.R.C.S., son of Hon. A. G. Jones, M.P., to Susan, daughter of the late Robert Morrow, Esq., of Bircham, Halifax.

KEY—BOTHAMLEY.—On Nov. 9th, at Christ Church, Mayfair, Augustus Cooper Key, M.R.C.P., of Wilton-place, Belgrave-square, to Julia, only daughter of the late William Henry Bothamley, Esq., of Clarendon-road, Notting-hill.

TROUP—STEWARD.—On Nov. 19th, at the Pro-Cathedral, Kensington, Robert William Troup, Surgeon-Major Medical Staff (Retired), to Bessie, only daughter of the late F. Yorke Steward, Esq.

DEATHS.

BUTLER.—On Oct. 26th or 27th, at Trinagar, Kashmir, Central Asia, Fanny Jane Butler, L.K.Q.C.P.I. & L.M., Medical Missionary C.E.Z.M.S., aged 39, third daughter of Thomas Butler, Esq., of Blackheath, late Assistant Secretary of the British Museum.

DAY.—On Nov. 13th, at Birmingham-street, Walsall, John Day, M.R.C.S., L.S.A., aged 78.

DEVUS.—On Nov. 10th, at North Walsham, Frederick Deyns, M.D. (New York), L.R.C.P. Lond., M.R.C.S.E., aged 60.

NUNN.—On Nov. 16th, at Feckenham, Redditch, after two days' illness, John Robert Nunn, surgeon, aged 29, only son of the late J. R. Nunn, surgeon, of Warwick.

PALMER.—On Nov. 15th, at Thorpe Cottage, Loughborough, William Grimes Palmer, M.R.C.S., L.R.C.P., in his 45th year. Friends will please accept this intimation.

SARGENT.—On Nov. 14th, at Pentlands, 55, Belvedere-road, Upper Norwood, London, Digory Warne Sargent, Retired M.R.C.S.E., late of Brixton and Camberwell, aged 74.

N.B.—A fee of 5s. is charged for the Insertion of Notices of Births, Marriages, and Deaths.

BOOKS ETC. RECEIVED.

BABYHOOD PUBLISHING COMPANY, New York and London.

Babyhood: a Monthly Magazine for Mothers, devoted to the care of Infants and young Children, and the general interests of the Nursery. Editor, L. M. Yale, M.D. Vol. V. Dec., 1888, to Nov., 1889. pp. 396.

BAILLIÈRE, TINDALL, & COX, King William-street, Strand, London.

The Student's Surgery. A Multum in Parvo. By F. J. Gant, F.R.C.S. 1890. pp. 817.

BLACKIE & SON, Old Bailey, London.

Down the Snow Stairs; or, from Good-night to Good-morning. By Alice Corkran. With 60 Illustrations. New Edition. pp. 257.

Tales of Daring and Danger. By G. A. Henty. Illustrated. 1890. pp. 160.

One of the Twenty-eighth. A Tale of Waterloo. By G. A. Henty. With Eight Illustrations and Two Maps. 1890. pp. 352.

The Hermit Hunter of the Wilds. By Gordon Stables, M.D. Illustrated. 1890. pp. 224.

By Pike and Dyke. A Tale of the Rise of the Dutch Republic. By G. A. Henty. With Illustrations and Four Maps. 1890. pp. 384.

History of King Alfred the Great of England. By Jacob Abbott. pp. 160. Price 1s.

Grettir the Outlaw; a Story of Iceland. By S. Baring-Gould. With Ten Illustrations and a Coloured Map. 1890. pp. 384.

CHURCHILL, J. & A., New Burlington-street, London, W.

Injuries and Diseases of Nerves, and their Surgical Treatment. By Anthony A. Bowlby, F.R.C.S. 1889. pp. 510.

DAVIS, GEORGE S., Detroit, Mich.

Syphilis of the Nervous System. By H. C. Wood, M.D., LL.D. 1889. pp. 135.

GRIFFIN & COMPANY, London.

A Text-book of Human Anatomy, Systematic and Topographical. By Alex. Macalister, M.A., M.D., F.R.S. With numerous Engravings. pp. 775.

GRIFFITH, FARRAN, OKEDEN, & WELSH, Newbery House, Charing-cross-road, London, and Sydney.

A Glossary of Anatomical, Physiological, and Biological Terms. By the late Thos. Dunman. Edited and supplemented with an Appendix, by V. H. Wyatt Wingrove, M.R.C.S. 1889. pp. 187. Price 2s. 6d.

KEGAN PAUL, TRENCH, & CO., Paternoster-square, London.

Principles of Universal Physiology. A Reform in the Theories of Physics, Chemistry, Biology, and Cosmology. By Camilo Calleja, M.D. 1889. pp. 146. Price 3s. 6d.

Egypt as a Winter Resort. By F. M. Sandwith, F.R.G.S. 1889. pp. 153. Price 3s. 6d.

LEWIS, H. K., Gower-street, London, W.C.

The Town Dweller; his Needs and his Wants. By J. Milner Fothergill, M.D.; with an Introduction by B. W. Richardson, M.D., LL.D., F.R.S. 1889. pp. 118.

On the Animal Alkaloids; the Ptomaines, Leucomaines, and Extractives in their Pathological Relations. By Sir William Aitken, M.D., F.R.S. Second Edition. 1889. pp. 112.

LONGMANS, GREEN, & CO., Paternoster-row, London.

Clinical Lectures on Varicose Veins of the Lower Extremities. By W. H. Bennett, F.R.C.S. With Three Plates. 1889. pp. 92. Price 6s.

MACLACHLAN & STEWART, Edinburgh.

A Manual of Practical Anatomy. By D. J. Cunningham, M.D. Part I.: Upper Limb, Thorax, Lower Limb. Second Edition. By the Author, assisted by H. St. John Brooks, M.D. 1889. pp. 464.

MACMILLAN & CO., London.

A Guide to District Nurses. By Mrs. Dacre Craven. 1889. pp. 137.

OLIVER & BOYD, Tweeddale-court, Edinburgh.

Contributions to the Surgical Treatment of Tumours of the Abdomen. Part II.: Electricity in the Treatment of Uterine Tumours. By Thos. Keith, M.D., LL.D. Edin., and S. Keith, F.R.C.S. Edin. 1889. pp. 255. Price 6s. 6d.

REYNOLDS, JAS., & SONS, 174, Strand, London.

Reynolds's Geological Atlas of Great Britain, comprising a series of Maps geologically coloured, from the best Authorities. With Sections and Views. Second Edition. 1889. pp. 48.

WATERLOW & SONS, London-wall, London.

Stammering: its Treatment. By B. Beasley. Tenth Edition. 1888. pp. 58.

WOOD, WM., & COMPANY, Lafayette-place, New York.

A Reference Handbook of the Medical Sciences, embracing the entire range of Scientific and Practical Medicine and Allied Science, by various Writers. Illustrated by Chromolithographs and five Wood Engravings. Edited by Albert H. Buck, M.D. Vol. VIII. Wor—Zym. Index. 1889. pp. 801.

WREDEN, FRIEDRICH, Berlin, and WILLIAMS & NORGATE, London.

Die Krankheiten der Frauen. Vierte Auflage. Von Dr. H. Fritsch. 1889. pp. 502.

Lehrbuch der Physikalischen Untersuchungsmethoden innerer Krankheiten. Bände I. und II. Von Dr. Hermann Eichhorst. 1889. pp. 480, 426.

Lehrbuch der Kinderkrankheiten. Dritte Auflage. Von Dr. Adolf Baginsky. 1889. pp. 954.

YOUNG J. PENTLAND, Edinburgh.

Cyclopædia of the Diseases of Children, Medical and Surgical. The articles written especially for the work by American, British, and Canadian Authors. Edited by J. M. Keating, M.D. Vol. II. Illustrated. 1889. pp. 1066.

Transactions of the Medical and Chirurgical Faculty of the State of Maryland, at its Ninety-first Annual Session held at Baltimore, Maryland, April, 1889 (J. B. Kurtz, Baltimore, 1889).—Modern Methods for the Cure of Obesity: being a Report read before the Medical Society of Berlin, by Dr. Jacques Mayer, Karlsbad. Translated by W. Deane Butcher, M.R.C.S. (R. Oxley & Son, Windsor, 1889).—Transactions of the Hong Kong Medical Society: Papers and Cases read during the first two years of the Society's existence. Edited by G. P. Jordan, M.R.C.S.E., P. Manson, M.D., and John C. Thomson, M.B., C.M. Vol. I. (Sampson Low, Marston, Searle, & Rivington, London, 1889).—The A B C of a Healthy House: being Hints to Householders, according with the rules of Her Majesty's Office of Works for buildings under their control; by R. W. Boyd, Associate of the Sanitary Institute of Great Britain (Simpkin, Marshall, & Co., London, price 1s.)—Essay LVI.: Reply to a French Review of Essay LII.; by Wm. Sharp, M.D., F.R.S. (George Bell & Sons, London, 1889).—Recherches sur la Signification de la Statistique des Maladies Vénériennes et Syphilitiques dans l'Armée du Royaume des Pays-Bas, afin de pouvoir juger de l'Influence des Mesures locales pour combattre ces Maladies par la Réglementation de la Prostitution; faites par G. J. D. Mounier (W. A. Beschoor, La Haye).—Kritik der Vaccinations Statistik und neue Beiträge zur Frage des Impeschutzes; Denkschrift an den neunten Internationalen Medicinischen Congress zu Washington, 1887; von Joseph Körösi; Zweiter, Erweiterter Abdruck (Puttkammer and Mühlbrecht, Berlin, 1889).—Useful Hints for Small Dairies, together with a sketch of the "Speedwell" new theory of Cream Raising; by C. H. Lepper, F.R.C.S. (G. Kent, London, 1889, price 6d.)—Bath and her Thermal Waters: a Scientific and Rational view of their use in Disease; with a sketch of the History of Bath, a chapter on Massage, and a Description of the Baths; by S. Craddock, M.R.C.S. (published at the *Bath Chronicle* Office, 1889, price 1s.)—The Student's Handbook of Water Analysis; a complete Practical and Theoretical Treatise, specially adapted for Students in India; by R. G. S. Chew, M.D. (J. C. Bose & Co., Calcutta, 1889).—First Aid to the Injured; St. John Ambulance Association: Report of the Central Executive Committee submitted to the General Assembly, June 24th, 1889 (Charles Cull & Son, London).—Endoskopie und Endoskopische Therapie der Krankheiten der Harnröhre und Blase; von Dr. Emil Burckhardt (H. Laupp'schen Buchhandlung in Tübingen, 1889).—St. Mungo's College, Glasgow: Inaugural Address delivered 23rd October, 1889, by W. G. Blackie, Ph.D., L.L.D., with an Appendix (The Secretary, Registered Office, Glasgow).—The Detection of Colour-blindness from a practical point of view; by F. W. Edridge-Green, M.D. (Baillière, Tindall, & Cox, London, 1889, price 1s.)—Lehrbuch der Allgemeinen und Speciellen Pathologischen Anatomie; by Dr. Ernest Ziegler; sechste Auflage (Gustav Fischer, Jena, 1889).—Beiträge zur Pathologischen Anatomie und zur Allgemeinen Pathologie; redigirt von Dr. E. Ziegler; Band 5, Hefte 2 und 3, Band 6, Hefte 1 und 2 (Gustav Fischer, Jena, 1889).—Facts about the Matabele Mashonas, and the Middle Zambesi, giving a full description of the Countries; by Louis P. Bowler (B. Glückstein, Pretoria, 1889).—Surgical Notes: A Record of some of the more interesting Cases observed, and of some of the remarks made, on Mondays and Thursdays, at the Surgical Dispensary of the Western Infirmary, Glasgow; by J. C. Renton, M.D. (Young J. Pentland, Edinburgh and London, 1889).—Official Report of the Autumnal Meeting in Newcastle, 1889, of the Institute of British Carriage Manufacturers.—Mikrophotographischer Atlas der Bakterienkunde; von Dr. Carl Fraenkel und Dr. Richard Pfeiffer; Fünfte Lieferung (August Hirschwald, Berlin, 1889).

Medical Diary for the ensuing Week.

Monday, November 25.

CHARING-CROSS HOSPITAL.—Operations, 3 P.M.
ROYAL LONDON OPHTHALMIC HOSPITAL, MOORFIELDS.—Operations, daily at 10 A.M.
ROYAL WESTMINSTER OPHTHALMIC HOSPITAL.—Operations, 1.30 P.M., and each day at the same hour.
CHELSEA HOSPITAL FOR WOMEN.—Operations, 2.30 P.M.; Thursday, 2.30.
ST. MARK'S HOSPITAL.—Operations, 2.30 P.M.; Tuesday, 2.30 P.M.
HOSPITAL FOR WOMEN, SOHO-SQUARE.—Operations, 2 P.M., and on Thursday at the same hour.
METROPOLITAN FREE HOSPITAL.—Operations, 2 P.M.
ROYAL ORTHOPÆDIC HOSPITAL.—Operations, 2 P.M.
CENTRAL LONDON OPHTHALMIC HOSPITAL.—Operations, 2 P.M., and each day in the week at the same hour.
UNIVERSITY COLLEGE HOSPITAL.—Ear and Throat Department, 9 A.M.; Thursday, 9 A.M.
THE THROAT HOSPITAL (Golden-sq., W.).—5.30 P.M. Mr. T. Mark Hovell: Some Affections of the Middle Ear. (Post-Graduate Lecture.)
SOCIETY OF ARTS.—8 P.M. Mr. William Jago: Modern Developments of Bread Making. (Cantor Lecture.)
MEDICAL SOCIETY OF LONDON.—8.30 P.M. Clinical Evening. The following cases will be shown:—Dr. Savill: Myxœdema in a Male.—Mr. Hurry Fenwick: Ataxic Bladder treated by Semi-suspension.—Dr. Beevor: Congenital Pemphigus.—Mr. Battle: Tuberculosis of the Palate.—Mr. Walter Pye: Congenital Deformity of the Extremities.—Mr. H. Allingham: Cutaneous Eruption for Diagnosis.—Dr. Russell: (1) Functional Paraplegia; (2) Disseminated Sclerosis in a Girl aged eleven.—Dr. de Havilland Hall: Pulmonary Systolic Murmur (? Congenital).—Mr. Bowreman Jessett: Two cases of Inguinal Colotomy operated on by a novel method.

Tuesday, November 26.

GUY'S HOSPITAL.—Operations, 1.30 P.M., and on Friday at the same hour. Ophthalmic Operations on Monday at 1.30 and Thursday at 2 P.M.
ST. THOMAS'S HOSPITAL.—Ophthalmic Operations, 4 P.M.; Friday, 2 P.M.
CANCER HOSPITAL, BROMPTON.—Operations, 2 P.M.; Saturday, 2 P.M.
WESTMINSTER HOSPITAL.—Operations, 2 P.M.
WEST LONDON HOSPITAL.—Operations, 2.30 P.M.
ST. MARY'S HOSPITAL.—Operations, 1.30 P.M. Consultations, Monday, 2.30 P.M. Skin Department, Monday and Thursday, 9.30 A.M. Throat Department, Tuesdays and Fridays, 1.30 P.M. Electro-therapeutics, same days, 2 P.M.
BRITISH MEDICAL TEMPERANCE ASSOCIATION (Rooms of the Medical Society of London, 11, Chandos-street, Cavendish-square).—Report on 279 Returns of Medical Officers of Workhouses as to the Use or Disuse of Alcohol therein.
ROYAL MEDICAL AND CHIRURGICAL SOCIETY.—8.30 P.M. Mr. A. W. Mayo Robson: A case of Cholecystenterostomy.

Wednesday, November 27.

NATIONAL ORTHOPÆDIC HOSPITAL.—Operations, 10 A.M.
MIDDLESEX HOSPITAL.—Operations, 1 P.M.
ST. BARTHOLOMEW'S HOSPITAL.—Operations, 1.30 P.M.; Saturday, same hour. Ophthalmic Operations, Tuesday and Thursday, 1.30 P.M. Surgical Consultations, Thursday, 1.30 P.M.
ST. THOMAS'S HOSPITAL.—Operations 1.30 P.M.; Saturday, same hour.
LONDON HOSPITAL.—Operations, 2 P.M. Thursday & Saturday, same hour.
GREAT NORTHERN CENTRAL HOSPITAL.—Operations, 2 P.M.
UNIVERSITY COLLEGE HOSPITAL.—Operations, 2 P.M.; Skin Department, 1.45 P.M.; Saturday, 9.15 A.M.
ROYAL FREE HOSPITAL.—Operations, 2 P.M., and on Saturday.
KING'S COLLEGE HOSPITAL.—Operations, 3 to 4 P.M.; Friday, 2 P.M.; Saturday, 1 P.M.
CHILDREN'S HOSPITAL, GREAT ORMOND-STREET.—Operations, 9.30 A.M.; Surgical Visits on Wednesday and Saturday at 9.15 A.M.
ANATOMICAL SOCIETY OF GREAT BRITAIN AND IRELAND (Board-room of the London Hospital).—4.45 P.M. Specimens:—Dr. Thomas W. Shore and Dr. Lewis Jones: Specimens illustrating the Structure of the Vertebrate Liver.—Dr. H. St. John Brooks: Models illustrating the Topographical Anatomy of the Abdomen.—Mr. J. J. Clarke (for Mr. H. A. Kidd): Abnormal Pulmonary Valves.—Dr. Bertram Windle: Ununited Epiphyses.—Dr. A. M. Paterson: Fractured Cervical Vertebræ. Papers:—Dr. Beer: On the Development of the Sylvian Fissure in the Human Embryo.—Dr. D. J. Cunningham: On the Intra-parietal Fissure of the Human Brain.—Dr. John Struthers: On the Preservation of Bodies for Dissection.
HUNTERIAN SOCIETY.—8 P.M. Sir Joseph Lister: Two Cases of long-standing Dislocation of both Shoulders treated by Operation, with Remarks on the Antiseptic Treatment of Wounds.
SOCIETY OF ARTS.—8 P.M. J. Hall Gladstone, Ph.D., F.R.S.: Scientific and Technical Instruction in Elementary Schools.
BRITISH GYNÆCOLOGICAL SOCIETY.—8.30 P.M. Specimens by Dr. Bantock and Dr. R. T. Smith. Papers:—Mr. Lawson Tait: Reply to some recent remarks on Ectopic Gestation.—Dr. Benington: On a case of Lunacy cured by Pessary.

Thursday, November 28.

ST. GEORGE'S HOSPITAL.—Operations, 1 P.M. Surgical Consultations, Wednesday, 1.30 P.M. Ophthalmic Operations, Friday, 1.30 P.M.
CHARING-CROSS HOSPITAL.—Operations, 2 P.M.
UNIVERSITY COLLEGE HOSPITAL.—Operations, 2 P.M.; Ear and Throat Department, 9 A.M.
CITY OF LONDON HOSPITAL FOR DISEASES OF THE CHEST, VICTORIA-PARK, E.—4.30 P.M. Dr. Vincent Harris: On Bronchitis, its Varieties and Relations to other Diseases.
THE THROAT HOSPITAL (Golden-sq., W.).—5.30 P.M. Mr. T. Mark Hovell: Some Affections of the Middle Ear. (Post-Graduate Lecture.)
HARVEIAN SOCIETY OF LONDON.—8.30 P.M. Mr. Knowsley Thornton: The Surgery of the Kidney. (Harveian Lecture.)

Friday, November 29.

ROYAL SOUTH LONDON OPHTHALMIC HOSPITAL.—Operations, 2 P.M.

Saturday, November 30.

MIDDLESEX HOSPITAL.—Operations, 2 P.M.
UNIVERSITY COLLEGE HOSPITAL.—Operations, 2 P.M.; and Skin Department, 9.15 A.M.

METEOROLOGICAL READINGS.

(Taken daily at 8.30 a.m. by Steward's Instruments.)

THE LANCET Office, November 21st, 1889.

Date.	Barometer reduced to Sea Level and 32° F.	Direction of Wind.	Dry Bulb.	Wet Bulb.	Solar Radiation in Vacuo.	Maximum Temp. Shade.	Min. Temp.	Rainfall.	Remarks at 8.30 A.M.
Nov. 15	30·35	S.	52	51	76	60	46	..	Overcast
,, 16	30·50	W.	52	51	..	60	51	..	Overcast
,, 17	30·62	N.E.	52	52	..	54	51	..	Overcast
,, 18	30·66	S.E.	49	49	58	52	48	..	Overcast
,, 19	30·67	S.E.	46	45	..	47	44	..	Foggy
,, 20	30·67	S.E.	43	43	47	44	41	..	Overcast
,, 21	30·53	S.E.	41	40	..	43	39	..	Overcast

Notes, Short Comments, & Answers to Correspondents.

It is especially requested that early intelligence of local events having a medical interest, or which it is desirable to bring under the notice of the profession, may be sent direct to this Office.

All communications relating to the editorial business of the journal must be addressed "To the Editors."

Lectures, original articles, and reports should be written on one side only of the paper.

Letters, whether intended for insertion or for private information, must be authenticated by the names and addresses of their writers, not necessarily for publication.

We cannot prescribe or recommend practitioners.

Local papers containing reports or news paragraphs should be marked and addressed to the Sub-Editor.

Letters relating to the publication, sale, and advertising departments of THE LANCET *to be addressed "to the Publisher."*

We cannot undertake to return MSS. not used.

MR. NELSON HARDY ON DR. RENTOUL'S PROPOSALS.

WE are sorry not to be able to find room for Mr. Hardy's paper, read at a recent meeting of the South London District Metropolitan Counties Branch of the British Medical Association, and opening a discussion on the proposed medical service. Mr. Hardy has gone through about forty columns of correspondence on this subject. He feels grateful to Dr. Rentoul for ably exposing the great abuse of the out-patient system, but disapproves of his particular proposals—his tariff, his suggested alliance with chemists, and his proposed organisation to enable one doctor to undersell another.

A Reader of THE LANCET.—We know of no evidence to warrant the belief that any article of diet is favourable to the production of cancer in the human subject.

Grieved.—We would advise our correspondent to send a copy of the circular to the Censors' Board of the Royal College of Physicians.

W. J. might put the questions to his medical adviser.

LONDON MEDICAL STUDENTS.

To the Editors of THE LANCET.

SIRS,—The Medical Prayer Union (Prof. A. Macalister, president) has arranged a Gospel Mission for London Medical Students, to take place in Devonshire House, Bishopsgate-street Without, each evening, from Nov. 25th to 30th (inclusive); address at 8 P.M. All members of the medical profession are heartily invited. A very representative number of the staffs of the various London medical schools have expressed their entire sympathy with the Mission. May I ask you to give this letter a place in your next issue?—I am, Sirs, yours truly,

JAMES L. MAXWELL, M.D.,
Hon. Sec., Medical Prayer Union.

Petherton-road, N., Nov. 18th, 1889.

A HINT IN OBSTETRICS.

To the Editors of THE LANCET.

SIRS,—For the sake of cleanliness and comfort I always keep my finger-nails very short, and consequently have often great difficulty in rupturing the membranes in a confinement. The patient's friends have, as a rule, a not unnatural dread of one's using a pointed instrument. Called to a case to-day in which the woman had been in labour about thirty hours, I found the membranes roll about in the usual exasperating manner. It struck me that a thimble would answer the purpose, and borrowing one I introduced it on the point of the forefinger. The moment I drew it across the membranes they ruptured, and the child was born in four minutes. I recommend that one should be carried in every midwifery bag.

I am, Sirs, yours truly,
Nov. 17th, 1889. J. B. E.

OVERCROWDING OF THE PROFESSION AT THE CAPE.

THE *Lantern* enlarges on the overcrowding of the profession at the Cape. In Cape Town, with 50,000 inhabitants, there are forty medical practitioners, without counting those in Government employment. In Johannesberg, South Africa, with 50,000, black and white, there are fifty-six doctors; and in Prætoria, with 20,000, there are over twenty.

M. O.—The possession of a diploma in public health is only requisite in the case of new appointments, or reappointments to the same office, of medical officers of health. The requirement does not come into operation until 1892—namely, three full years after the passing of the Local Government Act, 1888, and even then it is limited to districts, or a combination of districts, having a population of 50,000. But even for such districts the obligation to possess a diploma will not apply to health officers who have before 1892 held office for three consecutive years over an area having a population of not less than 20,000. At the same time, it is evident that sanitary authorities in electing medical officers of health are already showing that they give distinct preference to those holding such diplomas.

Dry-rot.—There is no reason to suppose that dry-rot is injurious to health, save in so far as it gives rise to noxious dust.

CHICHESTER: ITS DRAINAGE AND WATER-SUPPLY.

To the Editors of THE LANCET.

SIRS,—Chichester, situate on a gravelly soil, underlying which is a bed of London clay, contains 9000 inhabitants, and 1759 houses drain into this gravel by means of over 4000 cesspools and closet-pits, and from the water held in this bed of gravel nearly half the inhabitants now draw their water-supply. About eighteen years ago a company was formed to supply the citizens with water uncontaminated by sewage. At and before that time the death-rate of Chichester was very high, especially from typhoid fever. Strange to say, great opposition was given to the company, and for some years it was anything but a commercial success; but as the water came into use typhoid has diminished, and the death-rate lowered 3 per 1000; yet still for a provincial town so favourably situated as Chichester the death-rate is higher than it should be. All the medical practitioners save one, and many of the inhabitants, considering this system of drainage into the gravel under and around our dwelling houses, attendant as it is with considerable expense, not only unclean and abominably nasty, but fraught with great danger to the health of the citizens, brought forward candidates for the Town Council pledged to bring about a more modern system of drainage. Six other candidates were put forward by the anti-drainers. These gentlemen put out the enclosed thesis—"Thirty-nine Facts not generally known." It would be almost an insult to common sense to point out the many absurdities in this strange jumble. Specially would I draw your attention to Facts 25 to 32. I regret to say the anti-drainers have returned their men, and we are likely for some time to continue in our present insanitary condition.

NOTE.—Fact 31: The cesspool referred to is not such as recommended by the Public Heath Act, but such as is in general use here, dug well into the gravel, that the sewage may soak away.

I am, Sirs, yours truly,
Chichester, Nov. 4th, 1889. A CICESTRIAN.

*** We agree with our correspondent that a number of the thirty-nine "Facts" referred to are not facts at all; others are worded so as to be most misleading. And we observe, further, that whilst much is said as to the present state of Chichester being due to failure of the Town Council to put in force the powers they have under certain provisions of the Public Health Act, 1875, the signatories of the "Facts" significantly fail to remind the authority of Section 47 of that Act, by which "Any person who....allows the contents of any....cesspool to....soak therefrom" is liable to a penalty of forty shillings.—ED. L.

A NOTEWORTHY MIDWIFERY CASE.

To the Editors of THE LANCET.

SIRS,—Perhaps you may deem the following case worthy of record.

On Sept. 17th last I attended Mrs. B—— during the birth of her first child. It was a left occipito-anterior presentation, and the labour was somewhat more rapid than is usual in a primipara, especially as the child (a female) was a very fine baby. Whilst I attended to the baby (which did not show signs of life for some time), I instructed the nurse to lightly grasp the uterus, and carefully follow it down, if the placenta were to come away before I had roused the "vital spark" in the infant. The patient had one severe pain, and the placenta was expelled, the nurse (who is an experienced woman) using no force at all, but "following it down," as I had told her. I carefully examined the after-birth for membranes, &c., and found all intact. There was no hæmorrhage, no shock—no symptom of any kind to lead us to suspect that anything had gone wrong. On my examining her abdomen, however, I found, to my surprise, that there was no "ball" to be felt. I examined per vaginam, and found the womb in the vagina, and, indeed, partially projecting through the vulva. Of course, I immediately replaced it. The woman herself had no idea there had been anything wrong, and has made an uninterrupted recovery. The point worthy of note is total absence of shock, hæmorrhage, cold sweats, or even severe "dragging" pains.

I am, Sirs, yours truly,
Oct. 14th, 1889. J. W. W.

YAWS IN TRINIDAD.

ONE of the worst diseases to which the inhabitants of Trinidad are subject is that known as "yaws," a specific and highly contagious disease of African origin. In order to cope with it somewhat the Government have recently supplied medical advice and medicine free of charge. Dr. J. B. Tulloch, the colonial surgeon, however, has little faith in the present precautions adopted, since no provision has been made for the isolation of yaws patients, and attendance for treatment is only compulsory for children under eight years of age, while persons over that age may attend or not, as they please. In twelve months Dr. Tulloch has treated 626 patients; 345 were afterwards reported as cured; forty-two of these relapsed, and in two cases a second relapse took place. The average duration of treatment of those cured was eight weeks.

M. W.—We do not recommend practitioners.

A MUNCHAUSEN TALE OF A CANNON-BALL.

To the Editors of THE LANCET.

SIRS,—While on a visit to this interesting place my attention was directed by "Black's Guide to the Channel Islands" to a singular memorial inscription above the reading-desk in the parish church of St. Sampson, which was built in the twelfth century. I quote the words of the writing on the marble memento in the hope that some of your readers may be able to afford some explanation of the same. Surely, an outrageous falsehood is out of place in the house of God.

I remain, Sirs, your obedient servant,
Cobo, Guernsey, Channel Islands. MATTHEW CROOKSHANK.

"Dans cette Église et dans le même tombeau reposent les corps de Daniel Falla, Écuyer, de la Ronde Cheminée, fils cadet de Michel Falla, Écuyer, des Maisons au Comte, âgé de quarante-et-un ans, neuf mois, vingt jours, décédé au Seigneur, le 28 Février, 1792; et de Dame Susanne Le Pelley, son épouse, fille de Jean Le Pelley, Écuyer, des Pelley, âgée de quarante-quatre ans, neuf mois, vingt jours, décédée au Seigneur, le 30 Septembre, 1796. Ce Monument est érigé à leur mémoire, et à celle de leur fils cadet, Thomas Falla, Lieutenant du 12ème Régiment d'Infanterie, mort au siége de Séringapatam, le 6 Avril, 1799, âgé de dix-huit ans, six mois, vingt-cinq jours, des suites d'une blessure d'un boulet de canon solide, pesant vingt-six livres, qui s'était logé entre les deux os d'une de ses cuisses. La dite blessure s'était enflammée considérablement. Le Chirurgien du Régiment quoiqu'ayant examiné la plaie, ignorait qu'un boulet y fût renfermé, et ce ne fut qu'après sa mort, qui eut lieu six heures après l'événement, qu'il fût extrait, à la surprise de toute l'armée."

THE MOON DEFENCE FUND.

THE following additional subscriptions have been received:—John Poland, F.R.C.S., £2 2*s.*; J. Brindley James, M.R.C.S., £1 1*s.*; Mr. Deane (Henley-on-Thames), 10*s.* 6*d.*; Wm. Young Martin, M.D. (Walkden), 10*s.* 6*d.*

W. P.—The treatise of Hippocrates on "Air, Water, and Locality" was admirably edited by Coray (Paris, 1800). Of the two volumes of which the edition consists, the first gives an analysis of the treatise, a statement of the sources from which the revised text has been framed, a French translation, and a list of various readings. The second volume contains a full commentary, medical and philological. This edition was reprinted at Paris in 1816. "In his threefold qualification of Greek, physician, and Hellenist," says Littré, "Coray was better fitted than any other to edit the Hippocratic treatise, and I have acted on the belief that I could not draw too largely on a source of learning so abundant and so sound." Coray, a Greek by birth, graduated at Montpellier.

Aspirans should consult our Students' Number, published in September last.

AN APPEAL.

To the Editors of THE LANCET.

SIRS,—I have for some years known the wife of a medical man. She has long been afflicted with an incurable internal complaint, and is at times thoroughly prostrate with pain. In addition to this, the bread-winner is himself a hopeless invalid, and an inmate of an incurable hospital. His wife is totally without means of support, and feels most keenly her needy and altered circumstances. Her friends are desirous, if possible, to raise funds to buy an annuity, or to put her in some way where she can, when her delicate state of health will admit, do something to assist in getting a livelihood. I can with the utmost confidence recommend this case, being so well acquainted with it, and will gladly acknowledge the receipt of any donations which may be sent to me, or answer any inquiries from those who are disposed to give help.

I am, Sirs, yours faithfully,
C. BRADSHAW FOY,
November, 1889. Vicar of St. Mary's, West Kensington, W.

P.S.—The following have kindly allowed their names to appear as references:—Mrs. Benyon, Englefield House, Reading; Lady Shelley, Shobrooke Park; A. E. Durham, Esq., 32, Brook-street, Grosvenor-square, W.; Miss Alexander, 128, Harley-street, Cavendish-square, W.

TESTING EYESIGHT.

Mr. Clement E. Stretton, in endorsing our article on "Colour-blindness in Railway Officials," published in THE LANCET of the 9th inst., writes to explain that in his opinion a driver most certainly should be able to see an engine or train in front of him on a straight line at 1000 yards, or even a mile, or an object 6 ft. square at 1000 yards, but that to see a dot at 15 ft. is no proof that a man can see a target at 1000 yards. He adds that his society is glad that we consider its action "practical and fair."

B. is referred to our advertising columns for the information he seeks.

"COCAINE IN WHOOPING-COUGH."

To the Editors of THE LANCET.

SIRS,—I have used a 4-per-cent. solution of cocaine in a few of these cases, and having found the same objection that Dr. Carr spoke of—viz., dryness of the throat, I combined with it glycerine, and found that it entirely counteracted the disagreeable sensation. By using one part of glycerine to a stronger solution, so as to make it the desirable strength, I venture to say that the advantage will be apparent. The nicest way to apply the cocaine is by spraying; but the same objection applies, and the glycerine prevents the proper atomising of the fluid.

I am, Sirs, yours faithfully,

Dublin, Nov. 19th, 1889. ALEXANDER DUKE, F.C.P.I.

ERRATA.—In the report of Dr. Ewart's paper on Pneumothorax last week, on page 1008, second column, thirty-first line, for "10½ cub. cent. of mercury" read 10½ cub. cent. of *water*.—In the last line of our brief report last week of the quarterly meeting of the Medico-Psychological Society, for "Leiter's cells" read *Deiter's* cells.

COMMUNICATIONS not noticed in our present number will receive attention in our next.

COMMUNICATIONS, LETTERS, &c., have been received from—Dr. Ewart, London; Dr. B. W. Richardson, London; Dr. Arkle; Dr. A. Duke, Dublin; Mr. Marsh, Birmingham; Dr. Preston-King; Mr. Sample, Sunderland; Mr. H. J. Buck, London; Mr. W. H. Haw, Rustenburg; Dr. Tonge-Smith, Kettering; Mr. Rixon, London; Messrs. Baines and Sons, Leeds; Mr. Bond, Leyton; Dr. Ridge, Enfield; Mr. Adams Frost, London; Dr. Philipson, Newcastle-on-Tyne; Messrs. Harrison and Brass, Elgin; Mr. C H. Leet, Liverpool; Mr. Coote; Mr. Lawson Tait, Birmingham; Dr. Strahan, Northampton; Dr. J. L. Maxwell, London; Mr. G. Wherry, Cambridge; Dr. Wolfe, Glasgow; Dr. J. Adams, Malling; Dr. Auld, Glasgow; Mr. F. Little, London; Dr. T. Harris, Manchester; Mr. A. Cook, Cardiff; Mr. R. L. James, Birmingham; Dr. J. Coombs, Bedford; Mr. J. F. J. Sykes, London; Mr. J. H. Crocker, Eccles; Mr. F. A. Davis, London; Dr. Birdwood, Stockwell; Mr. Haslam, Birmingham; Dr. Reid, Stafford; Mr. Smith, Buenos Ayres; Mr. McLaren, London; Dr. Helm, Marazion; Messrs. Gibbs and Co., Wednesbury; Mr. Willoughby, London; Miss Pudney, Earl's Colne; Mr. Lediard, Carlisle; Mr. Mason, Sudbury; Messrs. Gibbons and Co., Leicester; Dr. Charteris, Glasgow; Mr. G. M. Evans, Bridport; Surgeon-Major Peacock, Karachi; Dr. Thursfield, Bridgnorth; Messrs. Grace, Bristol; Mr. Howe, London; M. Astier, Paris; Mr. H. Sell, London; Mr. Lewis, Worcester; Mrs. Levick, Paris; Mr. Davies, Detroit; Mr. Sankey, Baschurch; Mr. Phipson, London; Mr. Fuge, Taunton; Mr. Beasley, Huntingdon; Messrs. Mawson, Swan, and Weddell, Newcastle-on-Tyne; Mr. Bourchier, Brighton; Dr. Piercy Smith, London; Mr. Strapp, Baltimore; Dr. Gover; Messrs. Lee and Martin, Birmingham; Mr. C. E. Jennings, London; Messrs. Howgate and Chapman, Wakefield; Dr. Fairbank, Doncaster; Mr. Tennant, Tipperary; Mr. Barnes, Manchester; Mr. W. P. Peake; Dr. Milne, Accrington; Dr. S. M. Copeman, London; Mr. Stapleford; Dr. Byrne, co. Cork; Mr. Boxill, Westminster; Mr. Stone, Dublin; Mr. Thomas, Bagillt; Dr. Ralfe, London; Mr. West, Thirsk; Messrs. Maythorn and Son, Biggleswade; Mr. Williamson, Scarboro'; Mr. Corry, South Lambeth; Mr. Reed, Carmarthen; Mr. Outram; Dr. Slater, St. John's Wood; Mr. Davies, Maidstone; Mrs. Brabham, Plaistow; Mr. H. H. Ellis, Redhill; Mr. Alexander, Norwich; Banner, London; Grieved; Dry-rot; R. H.; J. B. E.; Medical Etiquette; Secretary, Grimsby District Hospital; Justice, Bombay; J. L., London; Secretary, Leys School, Cambridge; Bruxelles, London; S. S., London; Euonymised Cocoa Co., Birmingham; Medicus, Clapham; Secretary, Stafford Infirmary; Decency; Z. Y. X.; M.D., Maida-vale; A Young G.P.

LETTERS, *each with enclosure*, are also acknowledged from—Mr. Tully, Hastings; Mr. Macdonnell, Wigan; Miss Meason, Hants; Mr. Owen, Holyhead; Mr. Day, Staplehurst; Mr. Davy, Norwich; Mr. Tyte, Minchinhampton; Dr. Fitzpatrick, co. Donegal; Messrs. Maclehose and Son, Glasgow; Mr. Ernst, London; Dr. Bernstein, Lismore, New York; Mr. Eyre, Monmouth; Mrs. Deyns, Bucks; Mr. Smelt, South Devon; Mr. Flockton, Notts; Mr. Foulds, Edinburgh; Messrs. Slinger and Son, York; Mr. Jones, Manchester-square; Dr. Huband, Sutton Bonnington; Mr. Rennie, Cork; Mr. Evans, Radnor; Messrs. Easun and Son, Dublin; Miss Haslam, Manchester; Messrs. McKesson and Co., London; Mr. Emmerson, Rotherham; Messrs. Wyleys and Co., Coventry; Mr. Ungent, Colchester; Mr. Lindsey, Enniscorthy; Mr. Gavey, Ipswich; Mr. Cleveland, Hants; Rev. Master, Chelmsford; Mr. Palmer, Loughboro'; Mr. Simpson, London; Mr. Sargeant, Camberwell; Mr. Salmond, Derbyshire; Major Pead; Dr. Saunders, Ripley; Mrs. Brockbank, Settle; Mr. Mundy, London; Mrs. Meyer, Berks; Mr. May, Staffs; Dr. Tate, Vienna; Miss Mollett, Chelsea; Miss Jack, Sleaford; Dr. Sutherland, Northumberland; Messrs. Read and Co., Bristol; Mr. Heywood, Manchester; Messrs. Gibbons and Co., Leicester; Mr. Moss, Oldham; Mr. J. Carter; Messrs. Hunter and Gordon, Aberdeen; Miss Bramley, Lincoln; Messrs. Oliver and Boyd, Edinburgh; Mr. Pughe, Merioneth; Mr. Monks, Manchester; Dr. James, Glamorgan; Mr. Swan, Middlesbro'; Mr. Waller, Peterboro'; Mr. Usher, London; Mr. Coulton, Swaffham; Nomen, London; W. D., London; M.D., London; Lady Superintendent, Leeds Trained Nurses' Institute; M. X., London; Secretary, Smedley Hydropathic Establishment; A. D. S., London; Mater, London; Clerk, Salford Union; X., London; Bruxelles, London; Secretary, Royal College of Physicians, London; Medicus, Northumberland; Mabon, Bucks Infirmary; Orion, London; Alpha, Leeds; Secretary, University College, Dundee; Cyclops; W. L. W., London; Secretary, Yorkshire College, Leeds; Medicus, Leeds; Vienna, London; Kosmos; Lady Superintendent, Portland-place; W. B., London; Graduate; R., New Cross; Sanifera, London; Fairfield, London; Manager, Great Eastern Railway Co., London; Banner, London; Carabinier, London; North London, Islington; Z., Liverpool; Secretary, St. John Ambulance Association, London; M.R.C.S., Ilfracombe; Matron, Kidderminster Infirmary; Doctor, London; D. S. E., London; Secretary, Windsor Royal Infirmary; B. R., Adelphi; E. S., Walsall; A. R., London; The Hermitage, Crakehall; Branch, Bristol; K., Clevedon; Rhei, Monmouth; Medicus, Folkestone; W. M., London; Diploma, London; Grant, Yorks.

Birmingham Daily Gazette, Bridport News, Reading Mercury, Scotsman, Surrey Advertiser, Bournemouth Gazette, Whitby Gazette, Weekly Free Press and Aberdeen Herald, Liverpool Courier, Hertfordshire Mercury, Birmingham Daily Post, Mining Journal, Hants and Berks Gazette, Darlington and Stockton Times, British Architect, Lantern, Journal of the British and Foreign Health Resorts, &c., have been received.

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